

10:50 AM 6. Review investment strategy including Investment Risk Framework
Presented by David Stafford

 06A Item Summary.docx

 06B IRF Insights 2022-Q3 Confidential.pptx

 06C Summary IRF Dashboard 2022-10-31 Confidential.pdf

 06D Manager Strategy 2022-Q3 Confidential.docx

11:35 AM 7. Discuss and consider investment implementation including Premier Lists
for Real Assets

Presented by Ty Sorrel, David Stafford and RVK

 07A Item Summary.docx


 07B Implementation Update CONFIDENTIAL.docx

 07C COAERS Implementation Dashboard 2022-Q2 PORTIONS
CONFIDENTIAL.pdf


 07D Manager Monitoring Report 2022-Q2 CONFIDENTIAL.docx

 07E Manager Fees by Quarter 2022-Q3.pdf

 07F Current Premier List CONFIDENTIAL.pdf

 07G RVK Quarterly Summary of Manager Performance 2022-
Q2.pdf

 07H Real Assets - Market & Portfolio Review 3Q22.docx

 07I Strategic Review of Real Assets Portfolio.pptx

 07J Premier List Recommendations CONFIDENTIAL.docx

 07K Proposed Premier List CONFIDENTIAL.pdf

11:50 AM 8. Discuss and consider 2023 Investment Budget
Presented by David Stafford and David Kushner

 08A Item Summary.docx

 08B Investment Resources.pptx

 08C 2023 Proposed Investment Budget.pdf

 08D 2022 Investment Budget Progress.pdf

11:55 AM 9. Discuss and consider Investment Committee Charter
Presented by David Kushner

 09A Item Summary.docx

 09C Investment Committee Charter 2022-12-15 REDLINE.pdf

12:10 PM 10. Review 2022 Committee Work Plan and discuss development of 2023 Committee Work Plan

Presented by Christopher Hanson


 10A Agenda Item Summary.docx

 10B 2022 Investment Committee Work Plan.docx

 10C Proposed 2023 Investment Committee Work Plan.docx

12:15 PM 11. Receive key meeting takeaways and call for future agenda items

Presented by Committee Chair Benson

 11 Summary.docx

1. Call roll of Committee members

Presented by Committee Chair Benson

AGENDA ITEM 1:
Call roll of Committee members

AGENDA ITEM OBJECTIVE

The objective of the agenda item is to determine for the record which Trustees are present at the start of the meeting.

Each Trustee should respond to the roll call, and it will be noted which Trustees are present in person and which Trustees have joined via video conference.

2. Review order of business and establish meeting objectives

Presented by Committee Chair Benson

AGENDA ITEM 2:

Review order of business and establish meeting objectives

AGENDA ITEM OBJECTIVE

This agenda item provides Trustees the opportunity to review the order of business and to express a desire to take an agenda item out of order, and to discuss the key objectives of the meeting. The time frames on the agenda are for informational purposes only.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and implement leading practices in board governance, pension administration, and investment management**. It is an industry best practice to establish meeting objectives and review them at the outset of each meeting.

MEETING OBJECTIVES

1. As part of its **oversight** responsibility, the Committee will:
 - Receive reports on the Fund's performance relative to investment policy goals and objectives as well as the use of delegated authority in the pursuit of those goals (Agenda Item #5).
 - Receive reports on employment of the Fund's investment strategy including the Investment Risk Framework (Agenda Item #6).
 - Receive reports on the Fund's implementation approach including the status of COAERS Investment Manager Premier Lists (Agenda Item #7).
2. As part of its **review** responsibility, the Committee will:
 - Review the 2022 Committee Work Plan and discuss development of the 2023 Committee Work Plan (Agenda Item #10).
3. As part of its **approval** responsibility, the Committee will:
 - Consider the Premier Lists for Real Assets (Agenda Item #7).
 - Consider the 2023 Investment Budget (Agenda Item #8).
 - Consider revisions to the Committee Charter (Agenda Item #9).

ATTACHMENT

1. Proposed timeline of agenda items with potential time frames

Agenda Timeframes

November 19, 2022

Committee:
Investment Committee

Agenda Number	Agenda Item	Duration	Start	End
1	Call roll of Committee members – Committee Chair Benson	0:05	10:00 AM	10:05 AM
2	Review order of business and establish meeting objectives – Committee Chair Benson	0:05	10:05 AM	10:10 AM
3	Receive public comments – Committee Chair Benson	0:05	10:10 AM	10:15 AM
4	Consider approval of the August 26, 2022 Investment Committee minutes – Committee Chair Benson	0:05	10:15 AM	10:20 AM
5	Review investment performance including strategy, compliance, and delegation of authority – David Stafford and RVK	0:30	10:20 AM	10:50 AM
6	Review investment strategy including Investment Risk Framework (IRF) – David Stafford	0:45	10:50 AM	11:35 AM
7	Review investment implementation including Premier Lists for Real Assets – David Stafford, Ty Sorrel, and RVK	0:45	11:35 AM	12:20 PM
8	Discuss and consider 2023 Investment Budget – David Stafford, David Kushner	0:15	12:20 PM	12:35 PM
9	Discuss and consider Investment Committee Charter – David Kushner	0:05	12:35 PM	12:40 PM
10	Review 2022 Committee Work Plan and discuss development of 2023 Committee Work Plan – Christopher Hanson	0:15	12:40 PM	12:55 PM
11	Review key meeting takeaways and call for future agenda items – Committee Chair Benson	0:05	12:55 PM	1:00 PM
		3 Hr & 0 Min		

3. Receive public comments

Presented by Committee Chair Benson

AGENDA ITEM 3:
Receive public comments

AGENDA ITEM OBJECTIVE

This standing agenda item allows System members and members of the public the opportunity to provide comments to the Board.

RELEVANCE TO STRATEGIC PLAN/CORE COMPETENCIES

This agenda item meets the core competency established in the **COAERS Strategic Plan** “*Transparency: Complying with open meeting and public information laws to ensure the decision-making process is clear to members and the public.*”

The Chair will recognize any person who wishes to comment for up to three minutes per person.

4. Consider approval of the August 26,
2022 Investment Committee minutes
Presented by Committee Chair Benson

AGENDA ITEM 4:

Consider approval of the August 26, 2022 Investment Committee minutes

AGENDA ITEM OBJECTIVE

This standing agenda item seeks approval of the minutes from the prior quarterly Investment Committee meeting. The charter for the Investment Committee requires the Committee to keep minutes of its meetings.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets the core competency established in the **COAERS Strategic Plan** “*Transparency: Complying with open meeting and public information laws to ensure the decision-making process is clear to members and the public.*”

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends approval of the minutes of the August 26, 2022 Investment Committee meeting.

ATTACHMENT

1. Draft minutes of August 26, 2022 Investment Committee meeting



MINUTES
INVESTMENT COMMITTEE

Public Meeting held in person and videoconference
on August 26, 2022 at 10:00 a.m. CT

Pursuant to Texas Govt. Code 551.127

Committee Member Present/(Absent)	Other Board Trustees Present/(Absent)	<u>Others Present</u>
Michael Benson, Committee Chair Michael Granof Amy Hunter† Dick Lavine† Chris Noak	(Kelly Crook) (Yuejiao Liu) (Leslie Pool) (Anthony B. Ross, Sr.) (Brad Sinclair)* (Diana Thomas)	<u>Staff:</u> Christopher Hanson David Kushner David Stafford Sarah McCleary Ty Sorrel Kelly Doggett Mehrin Rahman Yun Quintanilla* Russell Nash* Amy Kelley*
<u>Guests:</u> Ian Bray, RVK Paige Saenz, General Counsel Joe Ebisa, WithIntelligence*	<i>*As Mr. Sinclair stayed on the phone but not on camera, his attendance is not counted.</i>	
* present telephonically † present via videoconference		

1 Call meeting to order

Committee Chair Benson called the meeting to order at 10:01 a.m. The following Committee members were present in person: Mr. Benson, Mr. Noak, and Mr. Granof. The following Committee members were in virtual attendance: Ms. Hunter and Mr. Lavine.

2 Review order of business and establish meeting objectives

Committee Chair Benson reviewed the order of business and meeting objectives with the Committee. No changes were made to the order of business.

3 Receive System member and public comments

Committee Chair Benson asked if any members of the public wished to speak, either now or during an agenda item. There were no comments.

4 Consider approval of the May 20, 2022 Investment Committee minutes

Committee Chair Benson asked the Committee to review the Investment Committee minutes. Mr. Michael Granof moved approval of the May 20, 2022 Investment Committee minutes. Mr. Chris Noak seconded, and the motion passed unanimously.

5 Review investment performance including strategy, compliance, and delegation of authority

The Committee reviewed investment performance and market data from RVK through June 30, 2022. Fund investments lost 11.08% net of fees during the quarter and gained 4.09% during the trailing three-year period.

Mr. David Stafford reviewed the investment strategy dashboard and noted that Staff continues to consider the long-term performance of the Fund in concert with what has been a difficult current market environment. Mr. Stafford noted that recent performance was challenging on an absolute basis which pushed returns below the Fund's assumed rate of return for the trailing 3- and 5-year periods. He also noted that implementation of a more diversified strategic asset allocation has added value for the Fund as relative performance exceeded the passive and policy benchmarks over the trailing 3-, 5- and 10-year periods. Mr. Stafford also presented data that suggested the Fund has been very well rewarded on a risk-adjusted basis over the trailing 10-year period.

Mr. Ian Bray of RVK noted that continued rising inflation, accelerated tightening of global monetary policy, and falling economic growth estimates led to most major indices ending negative in the second quarter. Inflation continued to rise in the US spurred on by supply chain disruptions, the war in Ukraine, and China's zero-COVID policy. Mr. Bray suggested that this market environment was highly unusual as this represented the first time in decades that both stocks and bonds declined concurrently in consecutive quarters.

Mr. Stafford also reviewed the compliance report, the delegation of authority report, and the investment cash activity report.

6 Review investment strategy including Investment Risk Framework

Mr. Stafford reviewed the risk/return outlook for the Fund via the Investment Risk Framework. He noted that markets imply modestly elevated near-term volatility for neutral Fund positioning. He further noted that the market environment is highly unusual with both stocks and bonds performing poorly at the same time, now for consecutive quarters. Additionally, he noted that every major asset class declined in the quarter, with the only exception being cash. As such, he suggested that US treasuries have lost some efficacy as a hedge to equity risk, and that Fund positioning with modest overweight to real estate, a bar-belled US Treasuries structure, and current cash amounts remains appropriate.

7 Discussion of Asset/Liability Study

Mr. David Kushner provided education on the Asset/Liability Study process. He explained the difference between an Asset Allocation study and an Asset Liability

Modeling study. He discussed how Asset Liability Modeling (ALM) looks at how different asset mixes affect the liability and cash flow needs of the Fund under different scenarios, and also considers contribution and benefit policies, and how these may influence the investment policies. Mr. Kushner provided the Committee with an outline of the steps of the ALM process.

8 Receive education on Global Equities asset class including role in the Strategic Asset Allocation and private markets considerations

Mr. Stafford discussed the role of Global Equities in the total Fund context. He shared data suggesting that Global Equities contribute about 65% of the returns and nearly all of the expected risk for the total Fund on a look through basis, using RVK assumptions. As such, he suggested that robust risk management is required by policy to carefully manage these investments, which includes maintaining prudent levels of diversification. He noted that currently the Fund is fully implemented via public equity markets and that many peers also implement via private markets. He suggested that it was prudent to discuss the potential benefits of private equity alongside the drawbacks to those strategies and suggested that the Asset Liability Study presented an opportunity to help evaluate those strategies in the total portfolio context.

Mr. Ian Bray of RVK provided an educational presentation on private equity and noted that the primary goals of private equity strategies are typically to enhance total portfolio return and increased diversification. He discussed the four broad private equity strategies of growth equity, buyouts, venture capital, and turnarounds/distressed/special situations. Additionally, he noted the broad range of performance outcomes in private equity and highlighted the importance of manager selection and portfolio structuring in leading to successful outcomes.

For reporting purposes to the Pension Review Board, training began at 11:08 am and ended at 11:58 a.m.

Trustees took a break from 11:59 a.m. to 12:16 p.m.

9 Discuss and consider investment implementation including Premier List for Global Equities

Mr. Ty Sorrel presented a report on the investment program's implementation activities during the second quarter, reviewed the manager monitoring report, and discussed investment manager fees by quarter.

Mr. Sorrel reviewed the current implementation and performance of Global Equities including a review of implementation choices in the US, developed markets and emerging markets sub-asset classes. Mr. Sorrel discussed data which he noted supported the risk managed approach undertaken by the Fund including the use of more diversified indices in the US, the use of futures for liquidity, and more active management in international equities, among other items. Given the upcoming Asset/Liability Study, he suggested that maintaining the current structure of these mandates was appropriate. Mr. Sorrel then proposed updates to the Premier Lists for

Global Equities.

Mr. Noak moved to recommend the proposed changes to the Premier Lists for Global Equities. Mr. Granof seconded, and the motion passed unanimously.

12 Review key meeting takeaways and call for future agenda items

Committee Chair Benson summarized the actions taken and information discussed at the meeting and provided an opportunity to add future agenda items. He noted a few revisions to the 2022 Committee Work Plan related to the decision to bring the Asset/Liability Study in 2022 and noted that RVK will do further education on the Asset Liability Modeling at the September Board meeting.

As there were no further items to address, the meeting adjourned at 1:00 p.m.

5. Review investment performance including strategy, compliance, and delegation of authority

Presented by David Stafford and RVK

AGENDA ITEM 5:

Review investment performance including strategy, compliance, and delegation of authority

AGENDA ITEM OBJECTIVE

This agenda item is for the Committee to review the Fund’s performance through September 30, 2022, as well as receive reports on the investment program related to strategy, compliance, delegation of authority, and cash management.

RELEVANCE TO STRATEGIC PLAN

This item allows the Committee to review Fund performance and assess the extent to which the System is meeting **COAERS Strategic Plan Goal 1: Achieve and maintain a funding level that ensures the long-term sustainability of the retirement system** since long-term investment performance consistent with the investment program’s goals is central to long-term System sustainability. Additionally, the agenda item allows the Committee to review the approved risk parameters and compliance requirements to ensure the System is fulfilling **COAERS Strategic Plan Goal 2: Responsibly Manage the Risks of the System.**

BACKGROUND

Staff and Consultant will review the performance of the Fund and major asset classes through the most recent quarter, which is summarized below for the period ended September 30, 2022:

	QTD	1Y	3Y	5Y	10Y
Fund return - gross of fees	-5.66	-16.13	1.98	3.55	5.93
<i>Percentile Rank vs. all peers* (1=highest)</i>	<i>90</i>	<i>77</i>	<i>87</i>	<i>84</i>	<i>80</i>
<i>Percentile Rank vs. small peers* (1=highest)</i>	<i>93</i>	<i>93</i>	<i>91</i>	<i>87</i>	<i>81</i>
Fund return - net of fees	-5.71	-16.34	1.72	3.27	5.60
Policy Index - gross return	-7.08	-19.43	0.85	2.67	5.23
Passive Index - gross return	-6.82	-20.41	0.14	1.96	4.12
Realized risk – standard deviation	<i>N/A</i>	<i>N/A</i>	13.63	11.84	9.56
<i>Percentile Rank vs. all peers* (1=highest)</i>	<i>N/A</i>	<i>N/A</i>	<i>26</i>	<i>29</i>	<i>26</i>

** Peer Return Data is provided by RVK and is preliminary as of 11/03/2022.*

ATTACHMENTS

1. COAERS Investment Strategy Dashboard as of 2022-Q3
2. COAERS Investment Compliance Dashboard as of 2022-Q3
3. COAERS Staff Report on Status of Delegated Authority as of 2022-Q3
4. RVK Summary of Fund Performance for 2022-Q3
5. COAERS Investment Operations Cash Activity Detail for 2022-Q3

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. RVK Quarterly Investment Performance Analysis for 2022-Q3
2. RVK Capital Markets Review for 2022-Q3
3. Callan Periodic Tables of Investment Returns for September 2022

INVESTMENT GOALS

1. Achieve long-term, annualized nominal rate of return net of fees that:

- Meets or exceeds the assumed actuarial rate of return for the System

	3Y	5Y	10Y
COAERS Fund - Net Return	1.72%	3.27%	5.60%
COAERS Actuarially Assumed Rate of Return	6.75%	6.75%	6.75%
Difference	-5.03%	-3.48%	-1.15%
Status	BELOW	BELOW	BELOW

2. Achieve a long-term, risk-adjusted relative rate of return net of fees that:

- Meets or exceeds the Passive Index (i.e. the Reference Portfolio)

Passive Index: 60% MSCI ACWI Net USD Unhedged/40% Bloomberg Global Agg USD Unhedged

	3Y	5Y	10Y
COAERS Fund - Net Return	1.72%	3.27%	5.60%
COAERS Passive Index - Gross Return	0.14%	1.96%	4.12%
Difference	1.58%	1.31%	1.48%
Status	ABOVE	ABOVE	ABOVE

Incorporating fee levels for the Passive Index that are consistent with best COAERS Premier List fees (11 bps)

	3Y	5Y	10Y
COAERS Passive Index - Net Return	0.03%	1.85%	4.01%
Difference	1.69%	1.42%	1.59%
Status	ABOVE	ABOVE	ABOVE

- Meets or exceeds the Policy Index (i.e. the Strategic Benchmark)

Policy Index: Target weighted composite of the benchmarks for the major asset classes in the SAA

	3Y	5Y	10Y
COAERS Fund - Net Return	1.72%	3.27%	5.60%
COAERS Policy Index - Gross Return	0.85%	2.67%	5.23%
Difference	0.87%	0.60%	0.37%
Status	ABOVE	ABOVE	ABOVE

Assuming fee levels for the Policy Index that are consistent with best COAERS Premier List fees (11 bps)

	3Y	5Y	10Y
COAERS Policy Index - Net Return	0.74%	2.56%	5.12%
Difference	0.98%	0.71%	0.48%
Status	ABOVE	ABOVE	ABOVE

Investment returns are presented in an annualized net basis unless otherwise noted

- Ranks in the top quartile of peer comparisons consistently

*Versus **all plans** and incorporating fee levels equal to the CEM Benchmarking median of 80 bps*

	3Y	5Y	10Y
COAERS Fund - Net Return	1.72%	3.27%	5.60%
Top Quartile Net Return - All Peers *	4.30%	4.79%	6.60%
Difference	-2.58%	-1.52%	-1.00%
Status	BELOW	BELOW	BELOW

*Versus **small plans** and incorporating fee levels equal to the CEM Benchmarking median of 99 bps*

	3Y	5Y	10Y
COAERS Fund - Net Return	1.72%	3.27%	5.60%
Top Quartile Net Return - Small Peers *	5.51%	5.19%	6.68%
Difference	-3.79%	-1.92%	-1.08%
Status	BELOW	BELOW	BELOW

* Peer Return Data is provided by RVK and is preliminary as of 11/03/2022.

INVESTMENT GOALS (continued)


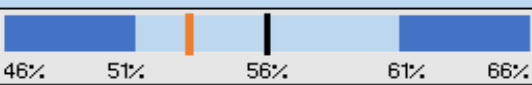
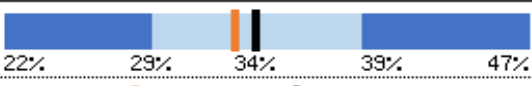
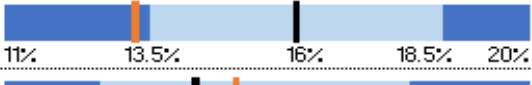
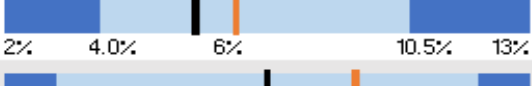
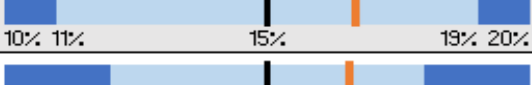
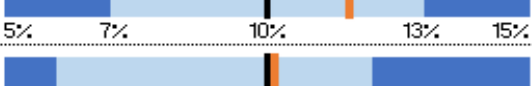
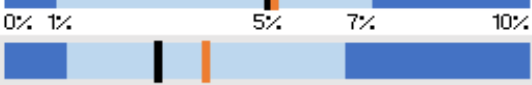
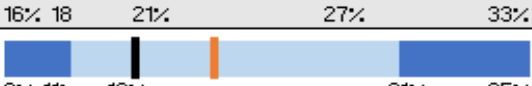




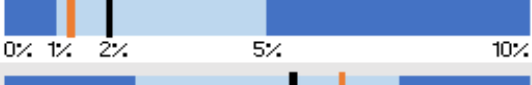
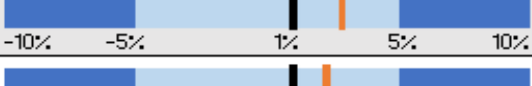

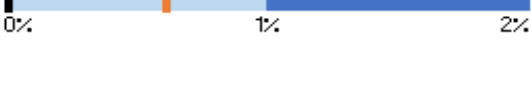

3. Achieve these strategic objectives via fiduciary best practices that:

- Ensure proper diversification of asset classes and factor exposures
 - Staff, working with Consultant, is conducting an Asset Liability Study and subsequent Asset Allocation Study to ensure Fund remains well-diversified across global markets, asset types, and implementation styles.
 - Staff is evaluating current portfolio hedging strategies to ensure the Fund maintains appropriate diversification against adverse regimes.
- Maintain appropriate long-term risk and return expectations
 - Staff, in conjunction with the current Asset/Liability and Asset Allocation studies, will review CMAs with IC/Board to assess outlook for market conditions and probable impacts to return and risk expectations.
 - Key Investment Manager views and asset allocation strategies analyzed to inform outlook.
- Adapt the asset allocation to changing market conditions
 - Staff regularly evaluates current market conditions via the Investment Risk Framework to guide recommendations to the IC/Board regarding changes to SAA parameters based upon current market conditions and their impact to return and risk expectations.
 - Delegated authority to implement strategy within SAA parameters approved by Board.
 - Investment Risk Framework approved by Board, regular reporting provided to IC.

RISK BUDGET

ABSOLUTE RISK (aka VOLATILITY)						
	POLICY			REALIZED		
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Volatility	10%	-	12%	13.6%	11.8%	9.6%
Status				ABOVE	WITHIN	BELOW
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Sharpe Ratio	-	0.50	-	0.17	0.26	0.58
Status				BELOW	BELOW	ABOVE
RELATIVE RISK (aka TRACKING ERROR)						
	POLICY			REALIZED		
	MIN	NEUTRAL	MAX	3Y	5Y	10Y
COAERS Fund - Tracking Error	-	150	300	191	175	173
Status				WITHIN	WITHIN	WITHIN
	MIN	TARGET	MAX	3Y	5Y	10Y
COAERS Fund - Information Ratio	-	0.50	-	0.97	0.90	1.01
Status				ABOVE	ABOVE	ABOVE

ASSET ALLOCATION

	Current	SAA Neutral	Relative	Bands	
Global Equity	53.0%	56.0%	-3.0%	Within	
US Equity	32.9%	34.0%	-1.1%	Within	
DM Equity	13.2%	16.0%	-2.8%	Under MinT	
EM Equity	6.8%	6.0%	0.8%	Within	
Real Assets	16.7%	15.0%	1.7%	Within	
Real Estate Equity	11.6%	10.0%	1.6%	Within	
Infrastructure Equity	5.1%	5.0%	0.1%	Within	
Fixed Income	22.5%	21.0%	1.5%	Within	
UST	15.4%	13.0%	2.4%	Within	
MBS	3.5%	4.0%	-0.5%	Within	
Credit	3.7%	4.0%	-0.3%	Within	
Multi Asset	4.9%	7.0%	-2.1%	Within	
Asset Allocation	3.6%	5.0%	-1.4%	Within	
Commodities & Othe	1.3%	2.0%	-0.7%	Within	
Cash & Equivalents	2.8%	1.0%	1.8%	Within	
US Dollar Instrumen	2.2%	1.0%	1.2%	Within	
Other Currencies	0.6%	0.0%	0.6%	Within	

INVESTMENT STRATEGY

1. Pursue a superior investment strategy by conducting:

- Formal Asset/Liability Study every 5 years or upon major changes to contributions, benefits, or capital markets.

	Completion Date	As of Date	Service Provider
Asset/Liability Study:	May 2018	December 2017	RVK

- Formal Asset Allocation Study every 3 years.

	Completion Date	As of Date	Service Provider
Strategic Asset Allocation Study:	February 2021	December 2020	RVK

- Review of Strategic Asset Allocation parameters at least every 1 year.

	Completion Date	As of Date
Strategic Asset Allocation Review:	February 2022	December 2021

- Review of IPS and IIP at least annually or upon major changes in capital markets or industry practices.

	Last Review Date	Last Revision Date
Investment Policy Statement:	March 31, 2022	March 31, 2022
Investment Implementation Policy:	March 31, 2022	March 31, 2022

ASSET DIVERSIFICATION

2. Maintain proper diversification of assets by:

- Reviewing investment concentration levels in any single public corporation.

	Individual Holding Concentration Limits:	Company Name	Level	Status
3% of the Fund in the securities of any one company:		EQUINIX INC	0.4%	OK
5% of the Fund of any class of voting security of any one company:		EQUINIX INC	0.4%	OK

- Reviewing investment concentration levels in any single investment manager or investment vehicle.

	Investment Manager Concentration Limits:	Manager/Vehicle	Level	Status
≤15% of Fund assets with any active manager:		Newton IM	7.9%	OK
≤30% of Fund assets with any passive manager:		Agincourt	14.9%	OK
≤20% of firm assets for any manager:		Agincourt	5.3%	OK
≤20% of vehicle assets unless a seed investment:		LGIMA MSCI USA	9.5%	OK
Board approved Seed Investments:		PGIM IG Credit	43.3%	Seed

FUND LIQUIDITY

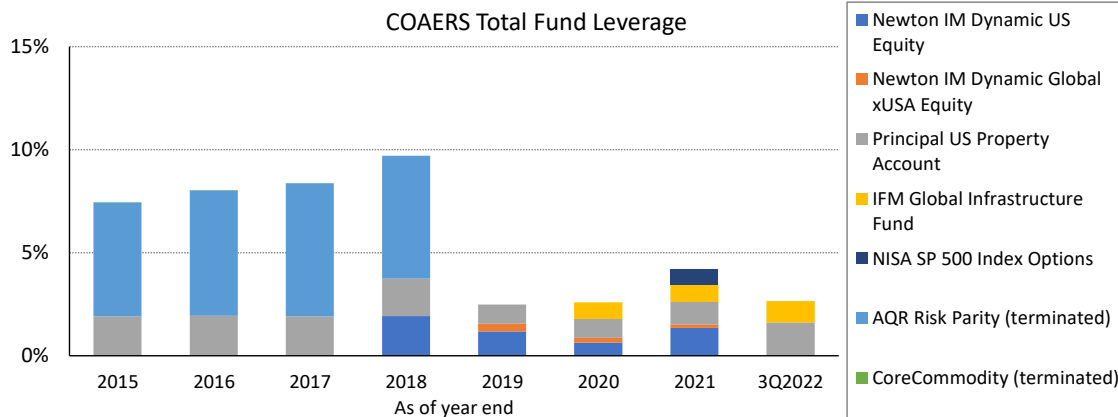
3. Ensuring sufficient liquidity to meet benefit payment and other obligations by:

- Review allocation to highly liquid investments quarterly.

Liquidity:	\$ millions	% of Fund	Accounts Included
0 - 5 Days	2,073	75%	All except those listed below
5-30 Days	425	15%	1607, PGIM, DoubleLine, Fidelity, Agincourt
30+ Days	281	10%	Principal, IFM

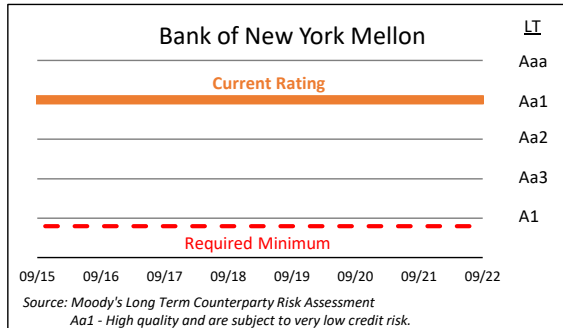
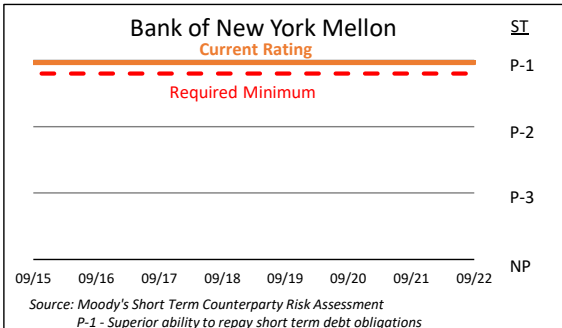
FUND LEVERAGE

4. Monitor level of risk associated with leverage at the Fund level and within portfolios.

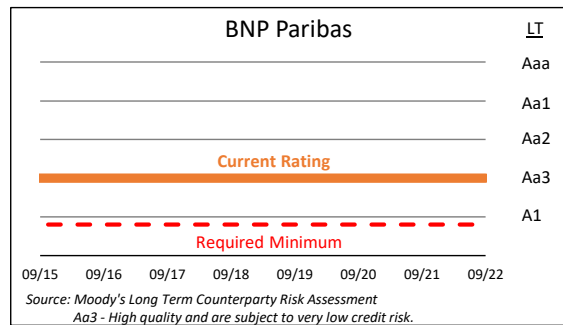
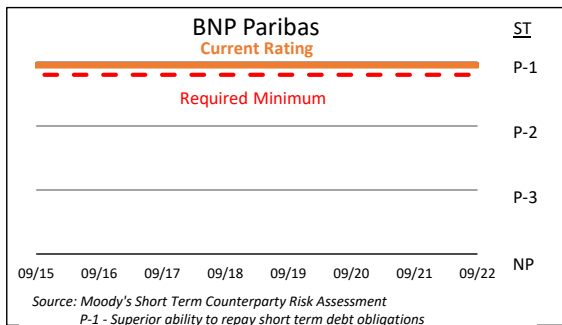
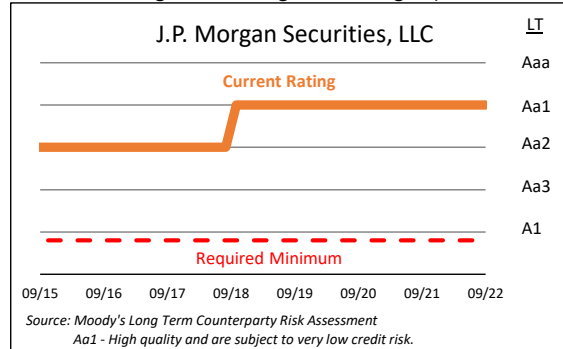
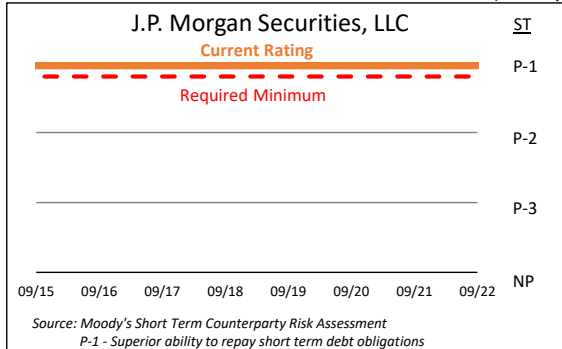


COUNTERPARTY MANAGEMENT

5. Monitor risk of loss from counterparty default and/or insolvency



Futures Commission Merchant: Must be at least A+ (Moody's Short Term Rating P-1 and Long Term Rating A1)



Status of Authority Delegated To COAERS Staff

Source	Nature of Delegated Authority	Status during 2022-Q3
IPS Section I	Executive Director may approve variances to further compliance	Unused
IPS Section I	Executive Director may update policies for administrative items	Unused
IPS Section II	Executive Director may act to protect System assets	Unused
IPS Section V	Fund positioning may be rebalanced due to market drift	Unused
IPS Section V	Fund positioning may be rebalanced for risk management	Unused
IPS Section V	Fund positioning may be rebalanced due to phased transition	Unused
IPS Section VI	Staff may move between lending and non-lending shares to manage risk	Unused
IIP Section I	Executive Director may update policies for administrative items	Unused
IIP Section IV	Staff may transition between approved Premier List managers	Unused
IIP Section V	Emergency termination of managers by Executive Director	Unused
IIP Section VIII	Staff may select Money Market Funds for cash investments.	Unused



Summary of Fund Performance

City of Austin Employees' Retirement System

Period Ended: September 30, 2022



Capital Markets Review		Market Performance				
<ul style="list-style-type: none"> OECD forecasted that headline inflation among G20 countries would finish 2022 above 8%. In September, the FOMC increased the federal funds rate, representing a third consecutive .75 percentage point hike. Global GDP growth forecasts are down to 3.0% in 2022 and 2.2% in 2023. 		QTD	1 Year	3 Years	5 Years	10 Years
S&P 500 (Mkt Cap Wtd)	-4.9	-15.5	8.2	9.2	11.7	
Russell 2000	-2.2	-23.5	4.3	3.6	8.6	
MSCI EAFE (Net)	-9.4	-25.1	-1.8	-0.8	3.7	
MSCI Emg Mkts (Net)	-11.6	-28.1	-2.1	-1.8	1.0	
Bbrg US Agg Bond	-4.8	-14.6	-3.3	-0.3	0.9	
Bbrg Cmdty (TR)	-4.1	11.8	13.5	7.0	-2.1	
NCREIF ODCE (Net)	0.3	21.0	11.4	9.3	9.9	

Total Fund Performance												
	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Total Fund	-5.7	-20.5	-16.3	1.7	3.3	5.5	5.6	13.0	10.8	20.7	-5.9	16.6
Policy Benchmark	-7.1	-23.5	-19.4	0.9	2.7	5.0	5.2	14.4	10.9	21.6	-6.8	16.0
Excess Return	1.4	3.0	3.1	0.8	0.6	0.5	0.4	-1.4	-0.1	-0.9	0.9	0.6

Total Fund Risk Metrics											
	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017	
Sharpe Ratio	-1.3	0.1	0.2	0.5	0.5	1.9	0.6	2.3	-0.9	7.8	
Standard Deviation	13.2	13.6	10.6	11.8	9.6	6.7	17.4	7.3	8.3	1.8	
Tracking Error	1.7	1.9	1.7	1.7	1.7	1.2	2.0	1.0	1.8	1.0	

Asset Class Performance						
	QTD	CYTD	1 Year	3 Years	Since Incep	Inception Date
Total Fund	-5.7	-20.5	-16.3	1.7	9.2	06/01/1982
Policy Benchmark	-7.1	-23.5	-19.4	0.9	N/A	
Excess Return	1.4	3.0	3.1	0.8	N/A	
US Equity	-4.6	-24.7	-18.0	5.1	10.2	06/01/1988
US Equity Benchmark	-4.8	-25.1	-17.6	7.7	10.2	
Excess Return	0.2	0.4	-0.4	-2.6	0.0	
Developed Markets Equity	-9.1	-29.9	-27.5	-0.2	3.4	01/01/2008
Developed Market Equity Benchmark	-9.2	-26.2	-23.9	-1.2	0.8	
Excess Return	0.1	-3.7	-3.6	1.0	2.6	
Emerging Markets Equity	-12.0	-30.9	-32.1	-5.0	-0.4	03/01/2008
Emerging Market Equity Benchmark	-11.6	-27.2	-28.1	-2.1	0.5	
Excess Return	-0.4	-3.7	-4.0	-2.9	-0.9	
Real Estate Equity	-3.8	-7.7	3.3	6.6	7.2	09/01/2004
Real Estate Equity Benchmark	-9.9	-28.1	-16.4	-2.0	7.5	
Excess Return	6.1	20.4	19.7	8.6	-0.3	
Infrastructure Equity	-4.5	-4.3	0.8	-0.7	-0.8	01/01/2020
Infrastructure Equity Benchmark	-9.8	-10.7	-6.7	-0.9	-2.7	
Excess Return	5.3	6.4	7.5	0.2	1.9	
Global Fixed Income	-5.1	-15.7	-14.9	-4.3	5.0	02/01/1991
Global Fixed Income Benchmark	-6.9	-19.9	-20.4	-5.7	4.6	
Excess Return	1.8	4.2	5.5	1.4	0.4	
Asset Allocation	-5.6	-19.8	-17.0	N/A	1.8	05/01/2020
Multi-Asset Benchmark	-6.8	-23.3	-20.4	0.0	2.9	
Excess Return	1.2	3.5	3.4	N/A	-1.1	
Commodities & Other	-7.8	-7.3	-4.1	N/A	N/A	07/01/2017
Commodities & Other Benchmark	-4.1	13.6	11.8	13.5	7.1	
Excess Return	-3.7	-20.9	-15.9	N/A	N/A	

Performance Commentary

- The Total Fund returned -5.7% net of fees during the quarter, outperforming the Policy Benchmark which returned -7.1%.
- Real Estate Equity was the best performing asset class on an absolute net of fees returning -3.8%. Infrastructure Equity had strong relative returns, outpacing its benchmark in Q3.

Asset Allocation vs. Target Allocation			
	Market Value (\$000)	Allocation (%)	Target (%)
US Equity	915,320	32.9	34.0
DM Equity	367,797	13.2	16.0
EM Equity	190,320	6.8	6.0
Real Estate Equity	321,815	11.6	10.0
Infrastructure Equity	142,017	5.1	5.0
Global Fixed Income	626,628	22.6	21.0
Asset Allocation	100,724	3.6	5.0
Commodities & Other	35,071	1.3	2.0
Cash & Equivalents	79,068	2.8	1.0
Total Fund	2,778,760	100.0	100.0

Schedule of Investable Assets					
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
CYTD	3,538,734,335	-40,210,099	-719,763,877	2,778,760,359	-20.47

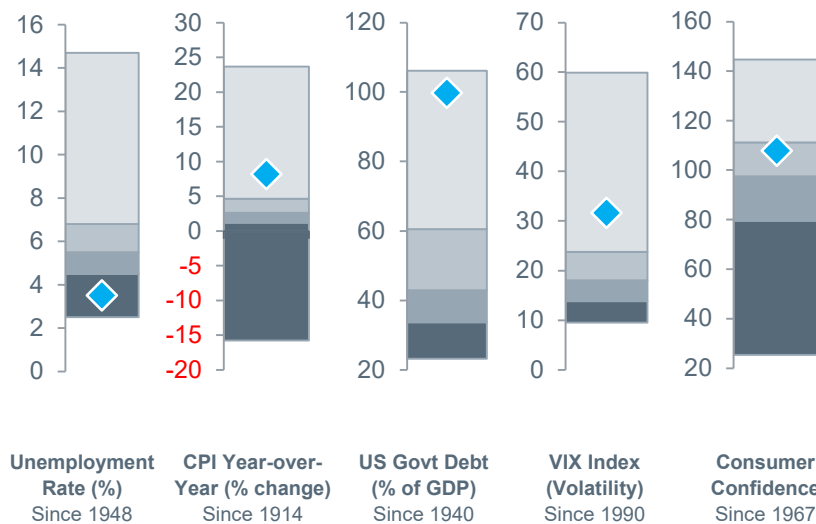
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly. Tracking Error shown is relative to the Passive Benchmark. Risk statistics shown are less meaningful for periods less than one year. Please see the addendum for custom benchmark definitions.



Third Quarter Economic Environment

Investor sentiment and market movements continued to be driven by persistently high inflation levels and a corresponding tightening of monetary policy by most global central banks. Strong consumer demand, combined with supply chain disruptions and energy supply constraints caused by the war in Ukraine, exacerbated the difficulties for policymakers aiming to respond to inflation in an effective yet balanced manner. In its interim September 2022 economic outlook, OECD forecasted that headline inflation among G20 countries would finish 2022 above 8%—and only moderate to 6.6% in 2023. The OECD’s inflation forecasts remain elevated compared to historical levels despite actions by global central banks, including the FOMC. In September, the FOMC increased the federal funds rate to a range of 3.00%-3.25%, which represented a third consecutive 0.75 percentage point hike. Global GDP growth forecasts continued to moderate during the quarter. The OECD forecasted real global GDP growth of 3.0% in 2022 and 2.2% in 2023, representing sharp declines from its December 2021 forecasts of 4.5% and 3.2%, respectively. Overall, economic and inflation forecasts are being impacted by multiple factors. In particular, the ongoing war in Ukraine could lead to sudden shifts in conditions, as global economic impacts could follow modifications to sanctions regimes, changes to external military support, pending NATO membership applications, or extreme energy supply shortages in Europe.

Key Economic Indicators



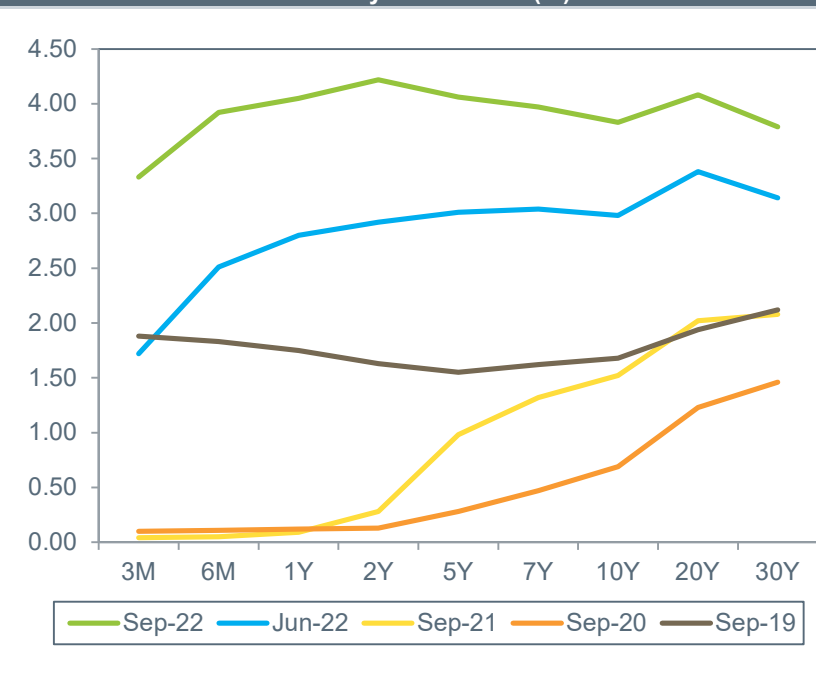
Economic Indicators

	Sep-22	Jun-22	Sep-21	Sep-19	20 Yr
Federal Funds Rate (%)	3.08 ▲	1.58	0.06	1.90	1.27
Breakeven Infl. - 5 Yr (%)	2.16 ▼	2.62	2.53	1.35	1.91
Breakeven Infl. - 10 Yr (%)	2.15 ▼	2.34	2.38	1.52	2.07
CPI YoY (Headline) (%)	8.2 ▼	9.1	5.4	1.7	2.4
Unemployment Rate (%)	3.5 ▼	3.6	4.7	3.5	6.0
Real GDP YoY (%)	1.8 =	1.8	5.0	2.3	2.0
PMI - Manufacturing	50.9 ▼	53.0	60.5	48.1	53.7
USD Total Wtd Idx	127.64 ▲	121.05	114.67	117.95	103.22
WTI Crude Oil per Barrel (\$)	79.5 ▼	105.8	75.0	54.1	67.2
Gold Spot per Oz (\$)	1,661 ▼	1,807	1,757	1,472	1,143

Market Performance (%)

	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-4.88	-23.87	-15.47	9.24	11.70
Russell 2000	-2.19	-25.10	-23.50	3.55	8.55
MSCI EAFE (Net)	-9.36	-27.09	-25.13	-0.84	3.67
MSCI EAFE SC (Net)	-9.83	-32.11	-32.06	-1.79	5.28
MSCI Emg Mkts (Net)	-11.57	-27.16	-28.11	-1.81	1.05
Bloomberg US Agg Bond	-4.75	-14.61	-14.60	-0.27	0.89
ICE BofAML 3 Mo US T-Bill	0.46	0.61	0.62	1.15	0.68
NCREIF ODCE (Gross)	0.52	13.08	22.09	10.24	10.92
FTSE NAREIT Eq REIT (TR)	-9.94	-28.13	-16.41	2.93	6.26
HFRI FOF Comp	-0.41	-6.97	-6.57	3.06	3.46
Bloomberg Cmdty (TR)	-4.11	13.57	11.80	6.96	-2.14

Treasury Yield Curve (%)

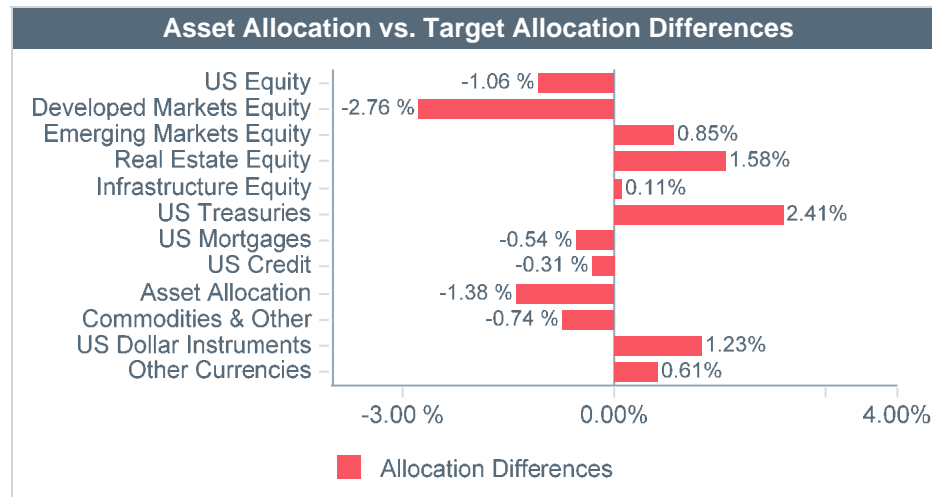
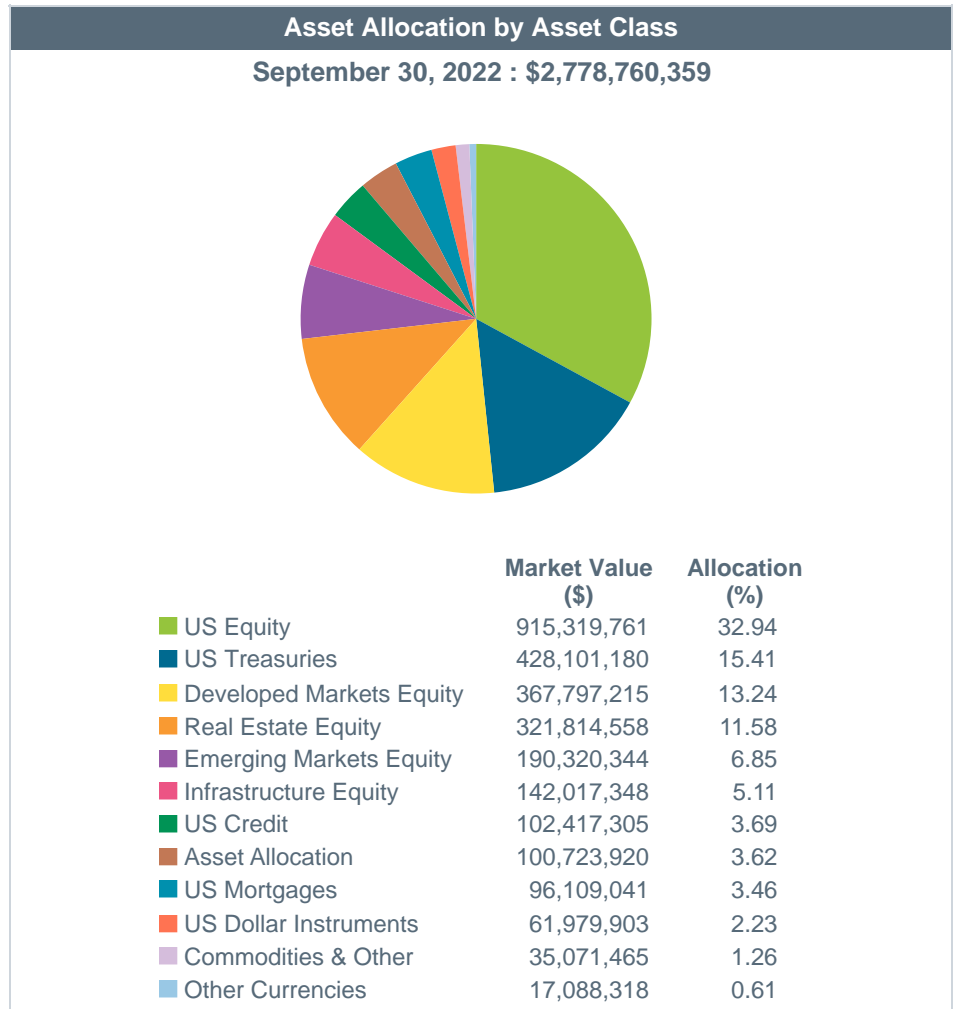


Composite: Total Fund

Asset Alloc. by Asset Class, Asset Alloc. vs. Target, and Schedule of Investable Assets

Schedule of Investable Assets					
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
CYTD	3,538,734,335	-40,210,099	-719,763,877	2,778,760,359	-20.47
1 Year	3,375,130,156	-51,860,038	-544,509,759	2,778,760,359	-16.34
3 Years	2,760,888,054	-139,068,704	156,941,009	2,778,760,359	1.72

Asset Allocation vs. Target Allocation					
	Market Value (\$)	Allocation (%)	Neutral (%)	Min. (%)	Max. (%)
Total Fund	2,778,760,359	100.00	100.00	-	-
US Equity	915,319,761	32.94	34.00	29.00	39.00
Developed Markets Equity	367,797,215	13.24	16.00	13.50	18.50
Emerging Markets Equity	190,320,344	6.85	6.00	4.00	10.50
Real Estate Equity	321,814,558	11.58	10.00	7.00	13.00
Infrastructure Equity	142,017,348	5.11	5.00	1.00	7.00
US Treasuries	428,101,180	15.41	13.00	11.00	21.00
US Mortgages	96,109,041	3.46	4.00	3.00	6.00
US Credit	102,417,305	3.69	4.00	2.50	7.00
Asset Allocation	100,723,920	3.62	5.00	3.50	7.50
Commodities & Other	35,071,465	1.26	2.00	1.00	5.00
US Dollar Instruments	61,979,903	2.23	1.00	0.00	5.00
Other Currencies	17,088,318	0.61	0.00	0.00	1.00



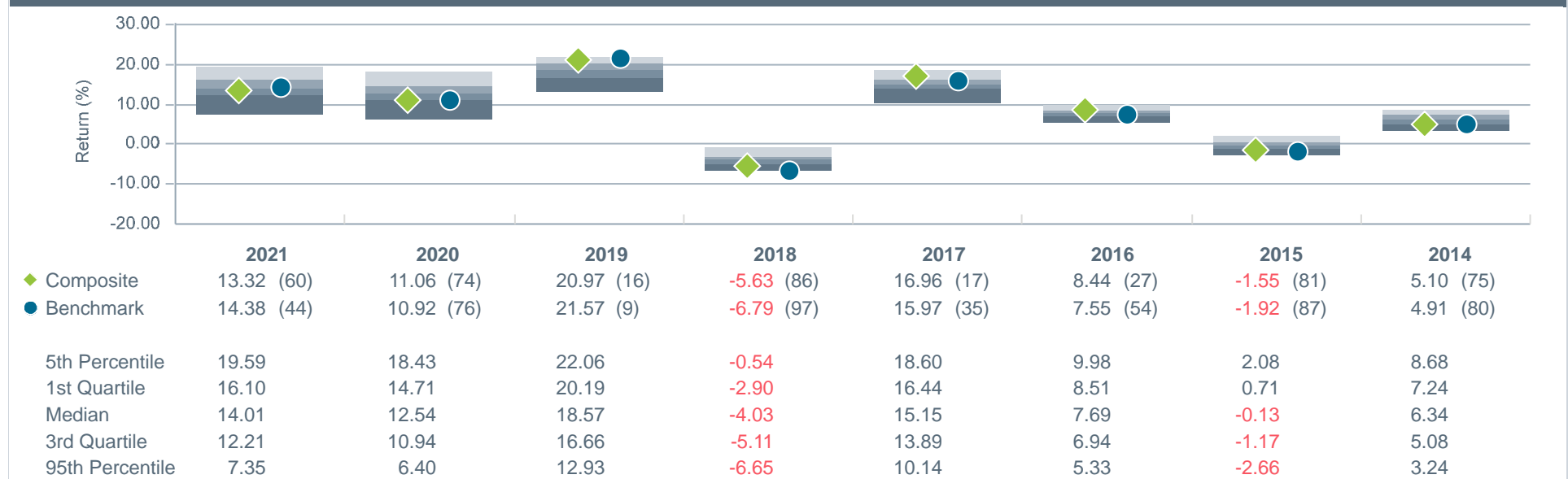
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Total Fund market value does not include \$781,888.41 in assets remaining at Northern Trust - representing accruals, cash, tax reclaims, and some assets that were restricted from being delivered due to a liquidation or pending corporate action.



Rate of Return - Trailing



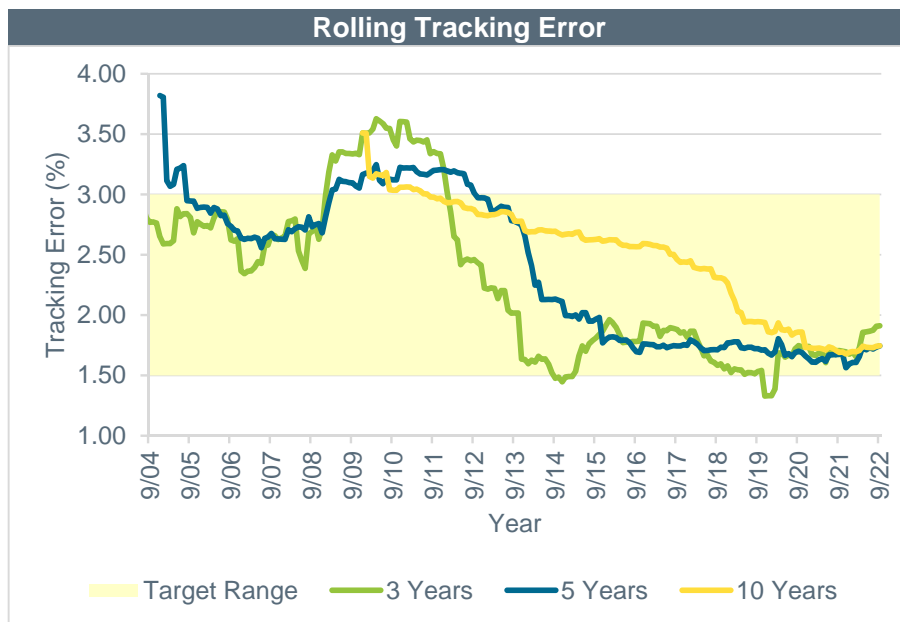
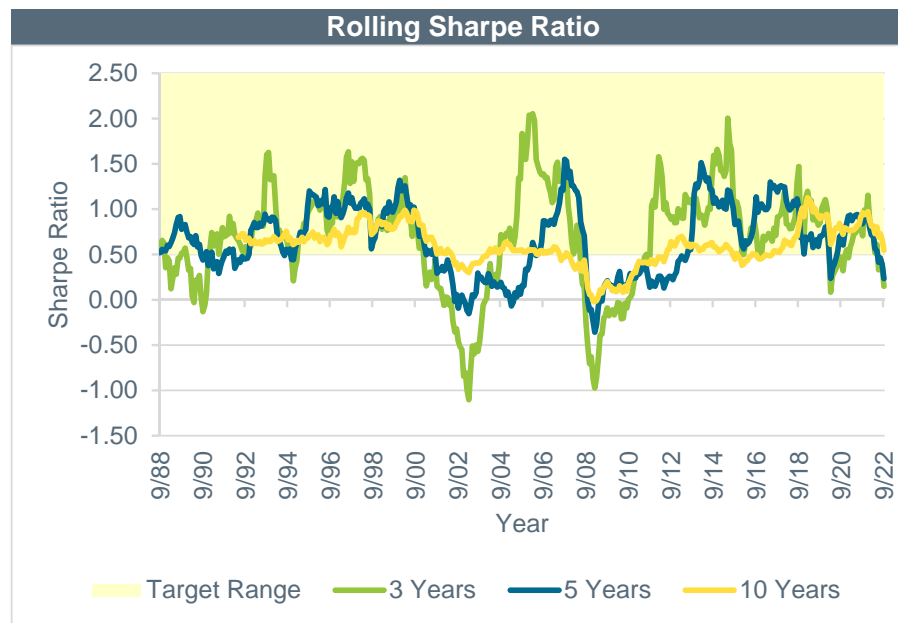
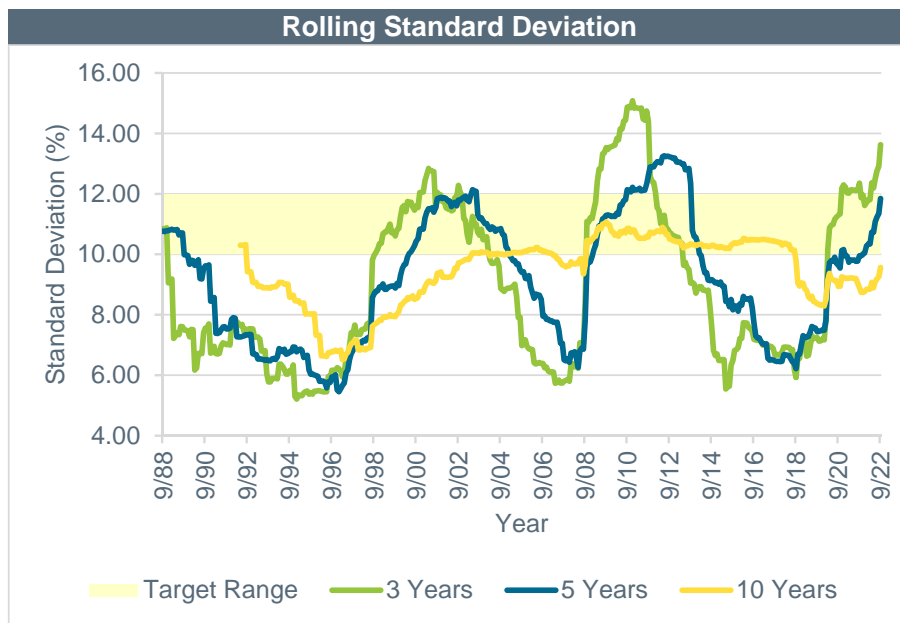
Rate of Return - Calendar



Performance shown is gross of fees and is annualized for periods greater than one year. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Composite: Total Fund
Rolling Risk Statistics (Net of Fees)

As of September 30, 2022



Performance shown is net of fees. Tracking Error and Info Ratio shown are relative to the Passive Benchmark.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,778,760,359	100.00	-5.71	-20.47	-16.34	1.72	3.27	5.60	9.17	06/01/1982
Policy Benchmark			-7.08	-23.53	-19.43	0.85	2.67	5.23	N/A	
Excess Return			1.37	3.06	3.09	0.87	0.60	0.37	N/A	
Passive Benchmark			-6.82	-23.27	-20.41	0.14	1.96	4.12	N/A	
Excess Return			1.11	2.80	4.07	1.58	1.31	1.48	N/A	
Global Equity	1,473,437,320	53.02	-6.74	-26.87	-22.61	2.22	3.56	6.97	8.40	06/01/1988
Global Equity Benchmark			-6.64	-25.72	-21.18	3.64	4.16	7.25	N/A	
Excess Return			-0.10	-1.15	-1.43	-1.42	-0.60	-0.28	N/A	
US Equity	915,319,761	32.94	-4.57	-24.66	-18.01	5.15	6.93	10.09	10.16	06/01/1988
US Equity Benchmark			-4.81	-25.08	-17.60	7.66	8.59	11.37	10.20	
Excess Return			0.24	0.42	-0.41	-2.51	-1.66	-1.28	-0.04	
Developed Markets Equity	367,797,215	13.24	-9.07	-29.88	-27.48	-0.23	0.63	4.55	3.41	01/01/2008
Developed Market Equity Benchmark			-9.20	-26.23	-23.91	-1.21	-0.39	3.62	0.85	
Excess Return			0.13	-3.65	-3.57	0.98	1.02	0.93	2.56	
Emerging Markets Equity	190,320,344	6.85	-12.03	-30.94	-32.09	-5.03	-3.45	0.44	-0.35	03/01/2008
Emerging Market Equity Benchmark			-11.57	-27.16	-28.11	-2.07	-1.81	1.05	0.45	
Excess Return			-0.46	-3.78	-3.98	-2.96	-1.64	-0.61	-0.80	
Real Assets	463,831,906	16.69	-4.07	-6.66	2.50	5.04	5.65	7.26	6.12	09/01/2004
Real Assets Benchmark			-9.85	-22.43	-12.98	-1.51	2.49	5.89	7.15	
Excess Return			5.78	15.77	15.48	6.55	3.16	1.37	-1.03	
Real Estate Equity	321,814,558	11.58	-3.85	-7.72	3.32	6.61	6.96	9.24	7.19	09/01/2004
Real Estate Equity Benchmark			-9.94	-28.13	-16.41	-2.05	3.55	6.90	7.51	
Excess Return			6.09	20.41	19.73	8.66	3.41	2.34	-0.32	
Infrastructure Equity	142,017,348	5.11	-4.55	-4.34	0.80	-0.74	-0.98	N/A	-0.81	01/01/2020
Infrastructure Equity Benchmark			-9.81	-10.66	-6.72	-0.91	1.22	4.76	-2.70	
Excess Return			5.26	6.32	7.52	0.17	-2.20	N/A	1.89	

Performance shown is net of fees and is annualized for periods greater than one year. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.



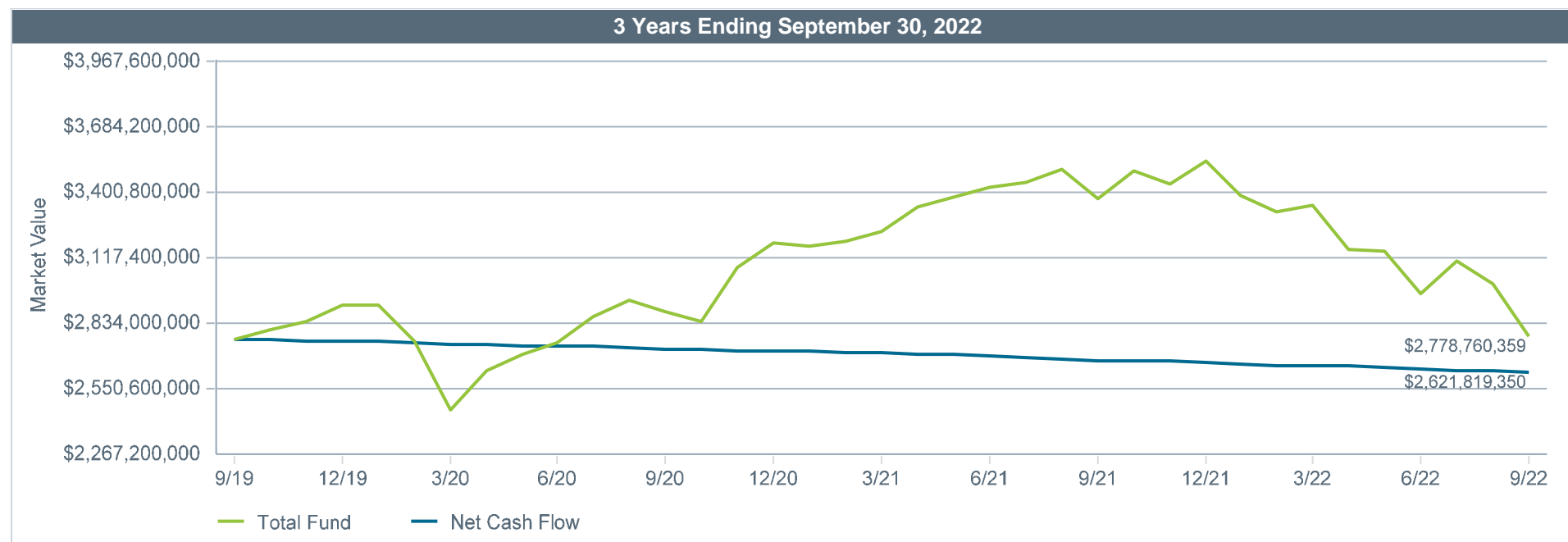
**Composite: Total Fund
Asset Allocation & Performance - Net of Fees**

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Global Fixed Income	626,627,526	22.55	-5.11	-15.71	-14.88	-4.32	-0.61	0.76	4.96	02/01/1991
Global Fixed Income Benchmark			-6.94	-19.89	-20.43	-5.74	-2.18	-0.08	4.61	
Excess Return			1.83	4.18	5.55	1.42	1.57	0.84	0.35	
US Treasuries	428,101,180	15.41	-5.01	-15.31	-14.02	-3.70	N/A	N/A	-0.80	05/01/2019
US Treasuries Benchmark			-4.35	-13.09	-12.94	-3.11	-0.23	0.50	-1.12	
Excess Return			-0.66	-2.22	-1.08	-0.59	N/A	N/A	0.32	
US Mortgages	96,109,041	3.46	-5.68	-13.33	-13.74	-3.63	N/A	N/A	-3.18	08/01/2019
US Mortgages Benchmark			-5.35	-13.66	-13.98	-3.67	-0.92	0.51	-3.19	
Excess Return			-0.33	0.33	0.24	0.04	N/A	N/A	0.01	
US Credit	102,417,305	3.69	-5.00	-19.41	-19.25	-3.58	N/A	N/A	-2.51	08/01/2019
US Credit Benchmark			-4.95	-18.07	-17.89	-3.61	-0.05	1.58	-2.68	
Excess Return			-0.05	-1.34	-1.36	0.03	N/A	N/A	0.17	
Multi-Asset	135,795,386	4.89	-6.18	-17.14	-14.19	1.88	3.86	N/A	3.64	02/01/2014
Multi-Asset Benchmark			-6.82	-23.27	-20.41	-0.01	1.86	4.07	3.40	
Excess Return			0.64	6.13	6.22	1.89	2.00	N/A	0.24	
Asset Allocation	100,723,920	3.62	-5.59	-19.84	-16.97	N/A	N/A	N/A	1.78	05/01/2020
Multi-Asset Benchmark			-6.82	-23.27	-20.41	-0.01	1.86	4.07	2.86	
Excess Return			1.23	3.43	3.44	N/A	N/A	N/A	-1.08	
Commodities & Other	35,071,465	1.26	-7.82	-7.33	-4.11	N/A	N/A	N/A	-0.19	04/01/2021
Commodities & Other Benchmark			-4.11	13.57	11.80	13.45	6.96	-2.14	22.16	
Excess Return			-3.71	-20.90	-15.91	N/A	N/A	N/A	-22.35	
Cash & Equivalents	79,068,221	2.85	0.85	0.97	0.97	0.62	1.10	N/A	1.09	07/01/2017
Cash & Equivalents Benchmark			0.47	0.63	0.64	0.55	1.10	0.64	1.09	
Excess Return			0.38	0.34	0.33	0.07	0.00	N/A	0.00	
US Dollar Instruments	61,979,903	2.23	0.94	1.05	1.05	0.64	1.12	N/A	0.90	09/01/2015
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.89	
Excess Return			0.47	0.42	0.41	0.09	0.02	N/A	0.01	
Other Currencies	17,088,318	0.61	0.52	0.75	N/A	N/A	N/A	N/A	0.75	12/01/2021
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.63	
Excess Return			0.05	0.12	N/A	N/A	N/A	N/A	0.12	

Performance shown is net of fees and is annualized for periods greater than one year. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.





Schedule of Investable Assets - Quarter To Date						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
QTD	2,961,650,113	135,066,980	150,132,068	-15,065,088	-167,824,666	2,778,760,359

Schedule of Investable Assets - Year To Date						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
CYTD	3,538,734,335	289,202,050	329,412,149	-40,210,099	-719,763,877	2,778,760,359

Schedule of Investable Assets - 1 Year						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
1 Year	3,375,130,156	576,611,287	628,471,325	-51,860,038	-544,509,759	2,778,760,359

Schedule of Investable Assets - 3 Years						
Periods Ending	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)
3 Years	2,760,888,054	4,081,436,269	4,220,504,973	-139,068,704	156,941,009	2,778,760,359

Cash flows shown are net of fees. Net cash flow shown in the line chart represents the beginning market value, adjusted for cash flows. Contributions and withdrawals detail shown includes intra-portfolio cash flows.



Cash Activity - Investment Operations

01 July 2022 - 30 September 2022

DATE	FROM	TO	PURPOSE	AMOUNT
BENEFIT PAYMENTS				
07/25/22	AGINCOURT 1-3M US TREASURIES	COAERS CASH	WITHDRAW TO FUND BENEFITS	\$5,000,000.00
07/25/22	COAERS CASH	CHASE OPERATING ACCOUNT	TRANSFER TO FUND BENEFITS	(\$5,000,000.00)
08/25/22	AGINCOURT 1-3M US TREASURIES	COAERS CASH	WITHDRAW TO FUND BENEFITS	\$5,000,000.00
08/25/22	COAERS CASH	CHASE OPERATING ACCOUNT	TRANSFER TO FUND BENEFITS	(\$5,000,000.00)
09/26/22	AGINCOURT 1-3M US TREASURIES	COAERS CASH	WITHDRAW TO FUND BENEFITS	\$5,000,000.00
09/26/22	COAERS CASH	CHASE OPERATING ACCOUNT	TRANSFER TO FUND BENEFITS	(\$5,000,000.00)
SUBTOTAL				\$0.00
MANAGEMENT FEES				
07/29/22	AGINCOURT 1-3M US TB	AGINCOURT 1-3M US TB	MANAGEMENT FEE	(\$3,214.69)
07/29/22	HOISINGTON MACROECON	HOISINGTON MACROECON	MANAGEMENT FEE	(\$73,400.94)
07/29/22	AGINCOURT 10 YR UST	AGINCOURT 10 YR UST	MANAGEMENT FEE	(\$5,037.51)
07/29/22	AGINCOURT 1-3 YR UST	AGINCOURT 1-3 YR UST	MANAGEMENT FEE	(\$15,301.03)
07/29/22	AGINCOURT PASSIV IND	AGINCOURT PASSIV IND	MANAGEMENT FEE	(\$9,812.28)
07/29/22	AGINCOURT FTSENAREIT	AGINCOURT FTSENAREIT	MANAGEMENT FEE	(\$1,872.00)
07/29/22	AGINCOURT 1-5YR USTP	AGINCOURT 1-5YR USTP	MANAGEMENT FEE	(\$6,361.74)
08/12/22	PGIM US IG CORP BOND	PGIM US IG CORP BOND	MANAGEMENT FEE	(\$63,478.57)
08/31/22	NISA ST SOVEREIGNS	NISA ST SOVEREIGNS	MANAGEMENT FEE	(\$300.31)
08/31/22	NISA GOLD FUTURES	NISA GOLD FUTURES	MANAGEMENT FEE	(\$5,604.04)
08/31/22	COAERS CASH	SSGA MSCI USA SC IND	MANAGEMENT FEE	(\$4,718.12)
08/31/22	COAERS CASH	NEWTON DYNAMIC XUSEQ	MANAGEMENT FEE	(\$21,851.42)
08/31/22	COAERS CASH	NTAM INTL SMALL CAP	MANAGEMENT FEE	(\$7,006.72)
08/31/22	NISA SP 500 INDEX OP	NISA SP 500 INDEX OP	MANAGEMENT FEE	(\$4,704.86)
08/31/22	NISA FX HEDGED EAFE	NISA FX HEDGED EAFE	MANAGEMENT FEE	(\$9,606.70)
08/31/22	NISA S&P 500 FUTURES	NISA S&P 500 FUTURES	MANAGEMENT FEE	(\$9,464.23)
08/31/22	NEWTON DYNAMIC US EQ	NEWTON DYNAMIC US EQ	MANAGEMENT FEE	(\$178,840.35)
08/31/22	NISA 30 YR UST FUTUR	NISA 30 YR UST FUTUR	MANAGEMENT FEE	(\$1,761.46)
08/31/22	NISA MSCI EAFE FUTUR	NISA MSCI EAFE FUTUR	MANAGEMENT FEE	(\$4,618.06)
08/31/22	NISA MSCI EM FUTURES	NISA MSCI EM FUTURES	MANAGEMENT FEE	(\$4,374.25)
08/31/22	NISA 10 YR UST FUTUR	NISA 10 YR UST FUTUR	MANAGEMENT FEE	(\$5,108.38)
08/31/22	SSGA MSCI USA EW IND	SSGA MSCI USA EW IND	MANAGEMENT FEE	(\$11,531.88)
08/31/22	MELLON SCIBETA US DC	MELLON SCIBETA US DC	MANAGEMENT FEE	(\$38,357.69)
08/31/22	DOUBLELINE MBS	DOUBLELINE MBS	MANAGEMENT FEE	(\$51,214.69)
08/31/22	FIDELITY US REITS	FIDELITY US REITS	MANAGEMENT FEE	(\$30,641.92)
08/31/22	FIDELITY US REITS	FIDELITY US REITS	MANAGEMENT FEE	(\$29,427.49)
08/31/22	WALTER SCOTT EAFE EQ	WALTER SCOTT EAFE EQ	MANAGEMENT FEE	(\$191,449.29)
08/31/22	1607 CAPITAL EAFE EQ	1607 CAPITAL EAFE EQ	MANAGEMENT FEE	(\$247,143.00)
08/31/22	FIDELITY DJBKF GLINF	FIDELITY DJBKF GLINF	MANAGEMENT FEE	(\$22,049.06)
08/31/22	FIDELITY DJBKF GLINF	FIDELITY DJBKF GLINF	MANAGEMENT FEE	(\$21,803.03)
09/01/22	TOBAM MAXDIV USA	TOBAM MAXDIV USA	MANAGEMENT FEE	(\$70,371.34)
09/30/22	COAERS CASH	LGIMA MSCI USA INDEX	MANAGEMENT FEE	(\$14,550.74)
09/30/22	COAERS CASH	LGIMA MSCI EM INDEX	MANAGEMENT FEE	(\$18,852.50)
09/30/22	LGIMA INFLATION PLUS	LGIMA INFLATION PLUS	MANAGEMENT FEE	(\$26,127.46)
09/30/22	LGIMA 5 15 YR US TIP	LGIMA 5 15 YR US TIP	MANAGEMENT FEE	(\$1,582.62)
SUBTOTAL				(\$1,211,540.37)
ALLOCATION CHANGES				
07/08/22	FIDELITY US REITS	COAERS CASH	DECREASE ALLOCATION TO ACCOUNT	(\$30,000,000.00)
07/08/22	FIDELITY DJ BROOKFLD GBL INF	COAERS CASH	DECREASE ALLOCATION TO ACCOUNT	(\$30,000,000.00)
07/08/22	COAERS CASH	AGINCOURT 1-3M US TB	INCREASE ALLOCATION TO ACCOUNT	\$30,000,000.00
07/08/22	COAERS CASH	NISA SHORT TERM SOVEREIGNS	INCREASE ALLOCATION TO ACCOUNT	\$15,000,000.00
07/08/22	COAERS CASH	NISA CASH AND CARRY	INITIAL FUNDING TO ACCOUNT	\$15,000,000.00
SUBTOTAL				\$0.00
TOTAL EXTERNAL TRANSFERS				
BENEFIT PAYMENTS				(\$15,000,000.00)
MANAGEMENT FEES				(\$1,211,540.37)
TOTAL				(\$16,211,540.37)

6. Review investment strategy including Investment Risk Framework

Presented by David Stafford

AGENDA ITEM 6:
Review investment strategy including Investment Risk Framework

AGENDA ITEM OBJECTIVE

The Committee will receive a report from Staff on insights from the IRF related to the Fund's investment strategy.

RELEVANCE TO STRATEGIC PLAN

This item meets **COAERS Strategic Goal 2: Responsibly Manage the Risks of the System**. Maintaining appropriate risk and return expectations is critical to meeting strategic goals, and failure to do so raises the risk of large drawdowns and the risk of subpar long-term returns for the Fund.

RECOMMENDATION FOR COMMITTEE ACTION

For discussion and informational purposes only, no action required.

BACKGROUND

The Investment Policy Statement (IPS) requires Staff to develop and maintain the Investment Risk Framework (IRF) to determine when deviations from neutral policy weights are expected to be advantageous to the Fund. The IPS requires that the outputs be reported at regular meetings of the IC and more frequently if needed. The IPS empowers Staff to act upon the outputs of the IRF to rebalance the Fund to further the Board's strategic goals. Any such rebalancing is required to be (1) approved by the Executive Director, (2) reported to the Board within one business day, and (3) reviewed with the IC at its next regular meeting.

Staff will review insights from the current Investment Risk Framework (IRF) dashboard to help inform Fund positioning for the current market environment. This review will include discussion of key questions facing the Fund such as strategic positioning, expected returns, and the potential for regime changes.

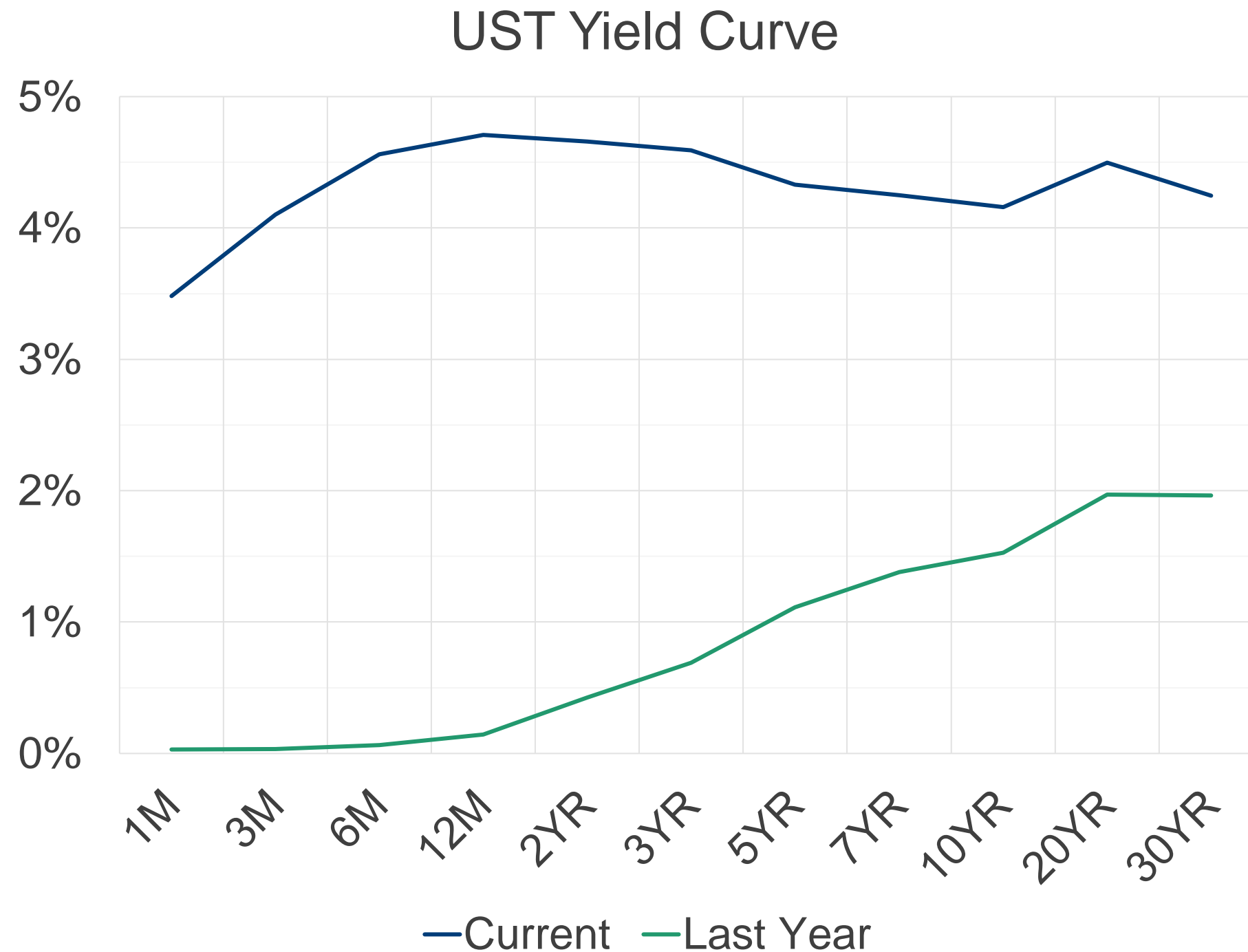
ATTACHMENTS

1. Staff Presentation: "IRF Insights" (CONFIDENTIAL)
2. IRF Summary Dashboard 2022-10-31 (CONFIDENTIAL)
3. Investment Manager Strategy Update (CONFIDENTIAL)

SUPPLEMENTAL MATERIALS PROVIDED VIA CONVENE APP

1. IRF Detailed Dashboard 2022-10-31 (CONFIDENTIAL)

US Treasury Yield “Curve”



- Recent increases in the Federal Funds rate have caused portions of the yield curve to invert as shorter-term rates exceed longer term rates – a classic recessionary indicator
- As such, yield premiums for bearing additional interest rate risk are not as favorable as they would be in a more normal environment
- Despite this challenging backdrop, longer duration US treasuries still serve an important role in providing a portfolio hedge through price appreciation when interest rates fall

7. Discuss and consider investment implementation including Premier Lists for Real Assets

Presented by Ty Sorrel, David Stafford and RVK

AGENDA ITEM 7:

Discuss and consider investment implementation including Premier Lists for Real Assets

AGENDA ITEM OBJECTIVE

The Committee will conduct the required quarterly review of the implementation of the System's investment strategies and the status of System's funded investment managers.

RELEVANCE TO STRATEGIC PLAN

This agenda item is part of the core competency set forth in the **COAERS Strategic Plan "Prudent Investment Management: Fulfilling fiduciary duty through monitoring performance within adopted process and stated goals."** Committee review of the implementation of the investment program ensures that Trustees monitor the performance of the portfolio.

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer to the Board for approval proposed changes to the Real Assets Premier List.

BACKGROUND

The Investment Implementation Policy (IIP) requires Staff to develop and maintain a Premier List of viable managers for potential inclusion within each allocation of the Fund. The IIP also requires the Premier List for each asset class to be reviewed with the Board via the Investment Committee on an annual basis.

Staff will lead the required annual review of the current construction and composition of the Real Assets allocations, including the associated Premier Lists.

ATTACHMENTS

1. Investment Implementation Update 2022-Q3 [CONFIDENTIAL]
2. Investment Implementation Dashboard [PORTIONS CONFIDENTIAL]
3. Investment Manager Monitoring Report 2022-Q3 [CONFIDENTIAL]
4. Investment Manager Fees by Quarter 2022-Q3
5. Current COAERS Premier Lists 2022-Q3 [CONFIDENTIAL]
6. RVK Summary of Manager Performance 2022-Q3
7. Real Assets Market & Portfolio Review 2022-Q3
8. Staff Presentation "Strategic Review of Real Assets" 2022-Q3



**COMMITTEE MEETING
Agenda Item Information Sheet**

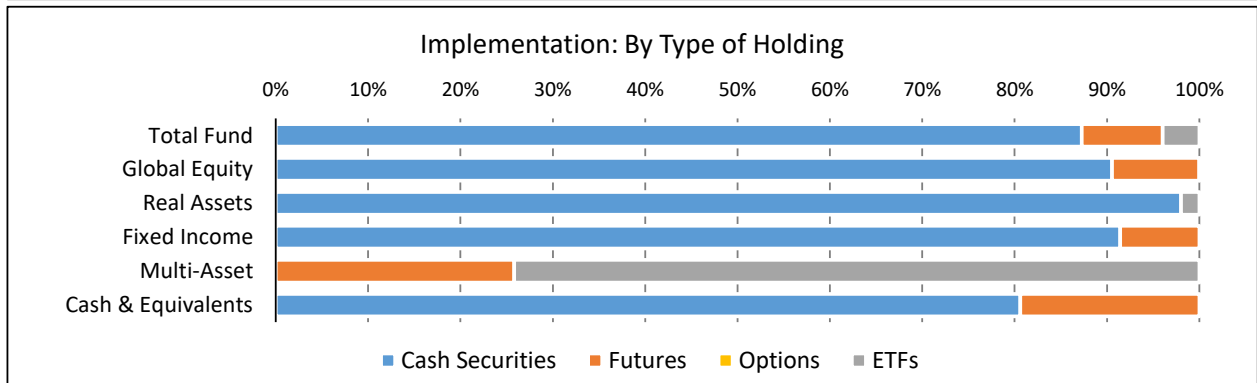
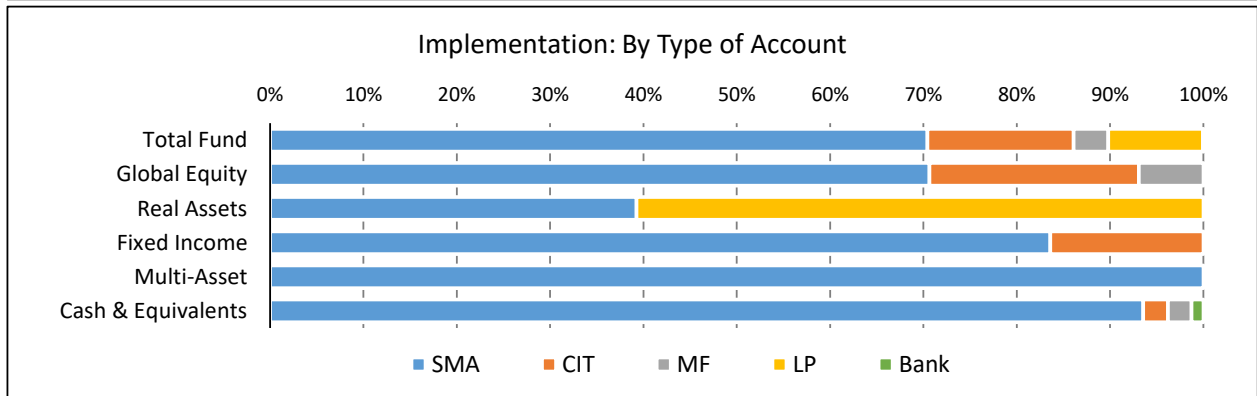
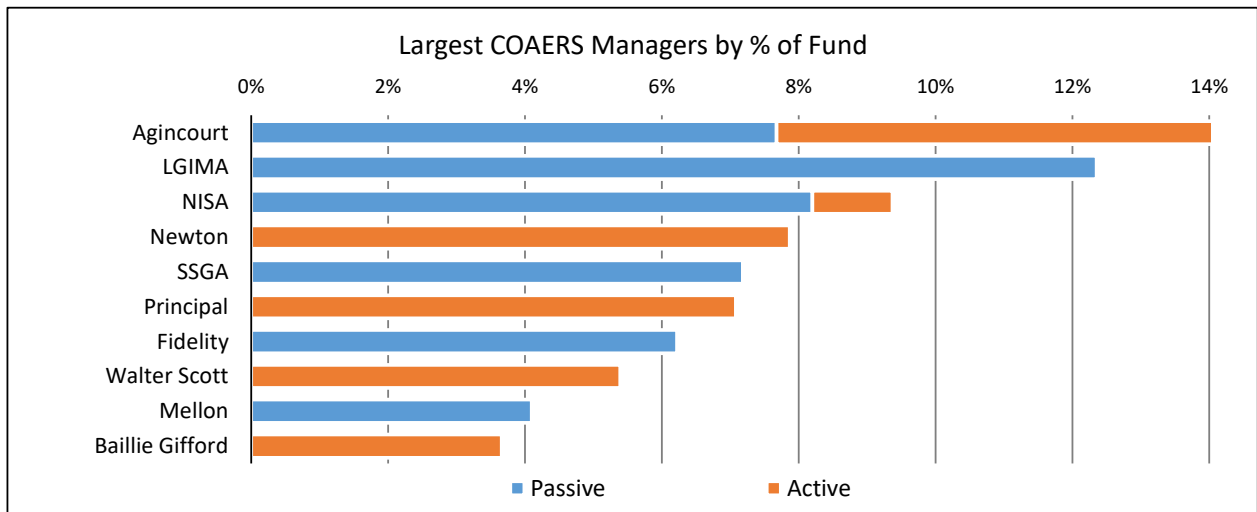
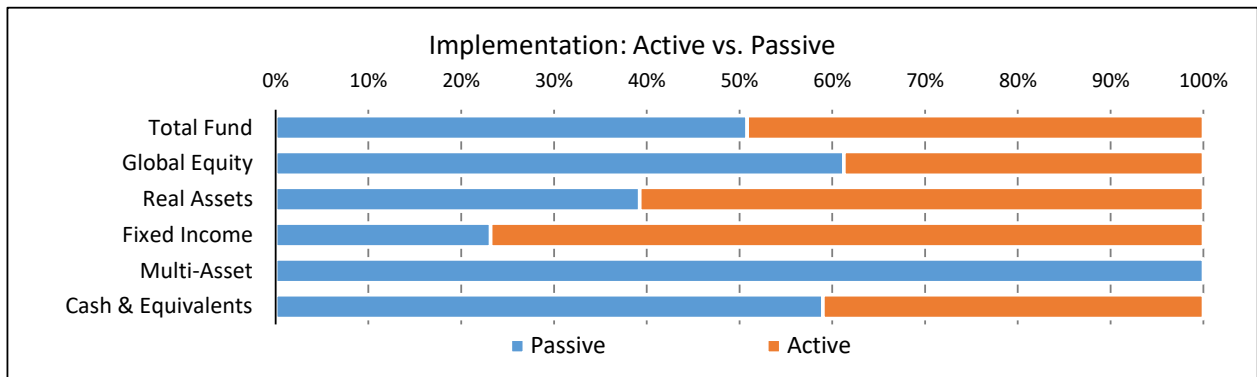
9. Premier List Recommendations [CONFIDENTIAL]
10. Proposed COAERS Premier List [CONFIDENTIAL]

SUPPLEMENTAL INFORMATION PROVIDED VIA CONVENE APP

1. RVK COAERS Investment Manager Compliance Reports
2. COAERS Funded Investment Manager Strategy Summaries

COAERS Implementation Dashboard

As of 9/30/2022



SMA = Separately Managed Account, CIT = Commingled Investment Trust, MF = Mutual Fund, LP = Limited Partner

COAERS Investment Manager Fees

DIRECT FEE PAYMENTS & ACCRUALS					
Earned In	2Q21	3Q21	4Q21	1Q22	2Q22
Paid In	3Q21	4Q21	1Q22	2Q22	3Q22
1607 Capital Intl Equities	361,755	469,546	482,562	332,341	247,143
Agincourt: 1-3M US Treasuries	2,661	1,330	3,614	2,119	3,215
Agincourt: 1-3Y US Treasuries	9,014	9,518	12,907	12,595	15,301
Agincourt: 10Y US Treasuries	5,654	5,640	5,685	5,299	5,038
Agincourt: 1-5Y TIPS	5,845	6,390	6,461	6,463	6,362
Agincourt Passive Index	10,427	11,034	11,451	10,865	9,812
Agincourt FTSE NAREIT Equity	1,871	2,191	2,544	2,443	1,872
Doubleline MBS	55,920	55,871	55,521	53,877	51,215
Fidelity DJ Brookfield	19,760	20,660	21,070	-	43,852
Fidelity US REITs	28,630	30,055	31,269	-	60,069
Hoisington	84,098	84,115	85,788	80,343	73,401
LGIMA 5 15YR US TIPS	-	-	1,736	1,689	1,583
LGIMA Inflation Plus	-	-	19,633	29,636	26,127
LGIMA - MSCI USA	17,666	18,915	16,628	15,672	14,551
LGIMA - MSCI EM	23,566	23,019	22,365	20,822	18,853
LGIMA - S&P 500	2,771	2,974	1,596	-	-
Mellon DEXUS	58,689	27,240	27,840	25,347	21,851
Mellon DUSE	205,756	208,550	233,169	215,547	178,840
Mellon Scibeta US Max Decorr	43,254	43,340	46,363	43,989	38,358
NISA Futures	44,607	52,915	47,141	49,016	45,542
NT Dev Intl Small Cap Fund ¹	7,169	7,529	7,557	7,612	7,007
SSGA MSCI USA Equal Weight	22,344	11,243	11,251	11,387	11,532
SSGA MSCI USA SmallCap	10,156	5,007	4,999	4,863	4,718
TOBAM Max Decorrelation	81,539	83,678	83,343	77,021	70,371
Walter Scott Intl Equities	235,014	246,420	241,362	207,633	191,449
TOTAL DIRECT PAYMENTS	1,338,166	1,427,181	1,483,856	1,216,580	1,148,062

1 NTAM Management Fees are paid in the quarter they are earned.

INDIRECT FEE PAYMENTS					
Earned In	3Q21	4Q21	1Q22	2Q22	3Q22
Paid In	3Q21	4Q21	1Q22	2Q22	3Q22
Baillie Gifford Emerging Market	265,402	247,437	210,970	191,599	180,407
Baillie Gifford Multi-Asset	4,865	5,096	4,628	270	
GMO Global Asset Allocation	19,132	18,786	17,883	1,019	
IFM Infrastructure	148,298	155,237	154,925	160,334	164,742
PGIM US Credit	70,067	72,601	72,083	67,549	63,479
Principal US Property	313,652	338,889	358,093	385,248	394,559
SUBTOTAL INDIRECT	821,416	838,046	818,582	827,240	803,186
TOTAL FEES	2,159,582	2,265,227	2,302,438	2,043,820	1,951,248

* Estimated



Summary of Manager Performance

City of Austin Employees' Retirement System

Period Ended: September 30, 2022

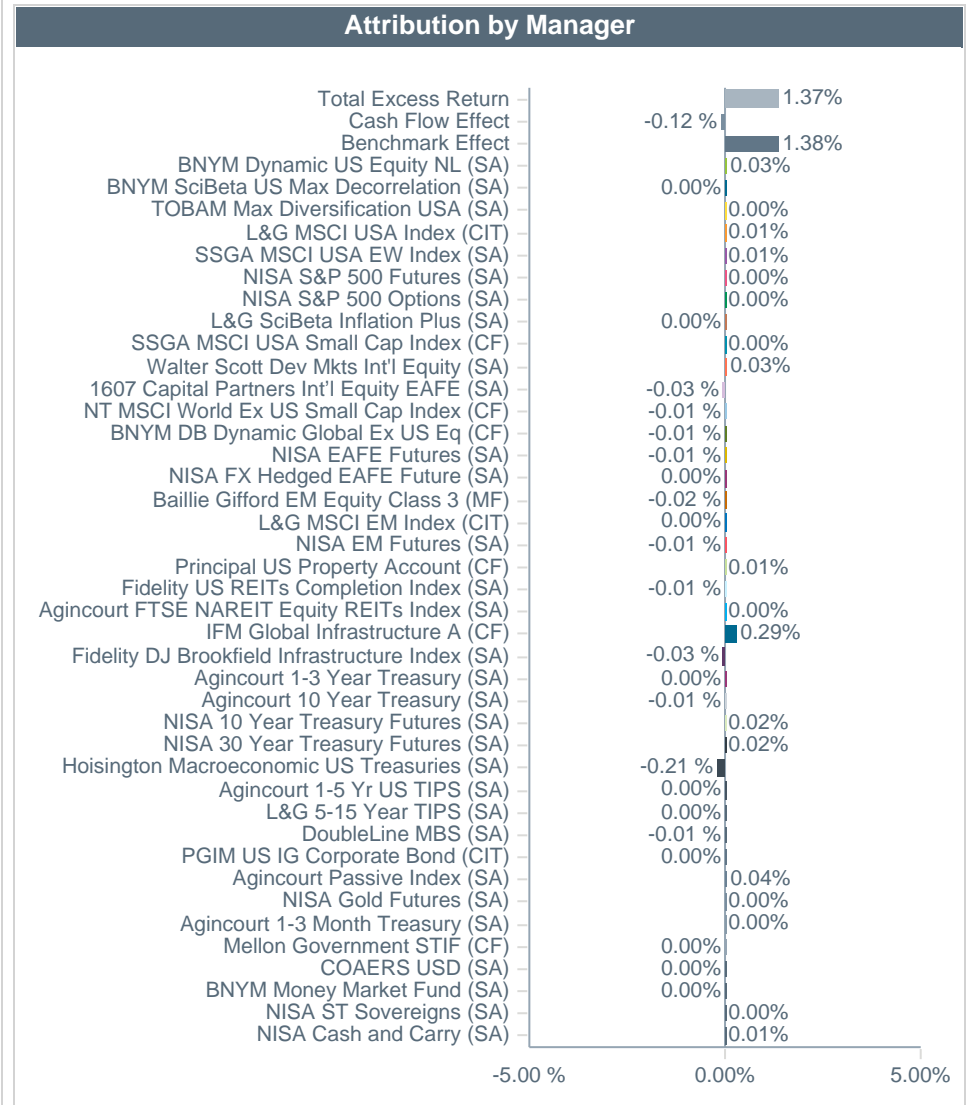


Composite: Total Fund
Benchmark: Policy Benchmark

As of September 30, 2022

	Market Value (\$)	Allocation (%)
Principal US Property Account (CF)	196,421,882	7.07
BNYM Dynamic US Equity NL (SA)	195,778,258	7.05
L&G MSCI USA Index (CIT)	170,623,641	6.14
SSGA MSCI USA EW Index (SA)	161,167,644	5.80
Agincourt 1-3 Year Treasury (SA)	152,817,260	5.50
Walter Scott Dev Mkts Int'l Equity (SA)	151,530,702	5.45
Fidelity US REITs Completion Index (SA)	116,244,318	4.18
BNYM SciBeta US Max Decorrelation (SA)	113,787,075	4.09
PGIM US IG Corporate Bond (CIT)	102,417,305	3.69
Baillie Gifford EM Equity Class 3 (MF)	101,510,817	3.65
TOBAM Max Diversification USA (SA)	101,289,954	3.65
1607 Capital Partners Int'l Equity EAFE (SA)	100,966,052	3.63
Agincourt Passive Index (SA)	100,723,920	3.62
DoubleLine MBS (SA)	96,109,041	3.46
IFM Global Infrastructure A (CF)	84,881,889	3.05
Hoisington Macroeconomic US Treasuries (SA)	83,124,694	2.99
L&G SciBeta Inflation Plus (SA)	78,440,962	2.82
L&G MSCI EM Index (CIT)	63,752,641	2.29
Agincourt 1-5 Yr US TIPS (SA)	61,578,332	2.22
Fidelity DJ Brookfield Infrastructure Index (SA)	57,135,459	2.06
NISA S&P 500 Futures (SA)	55,977,929	2.01
Agincourt 10 Year Treasury (SA)	47,225,505	1.70
Agincourt 1-3 Month Treasury (SA)	41,543,930	1.50
NISA 10 Year Treasury Futures (SA)	40,890,819	1.47
SSGA MSCI USA Small Cap Index (CF)	38,192,922	1.37
NISA Gold Futures (SA)	35,071,465	1.26
NT MSCI World Ex US Small Cap Index (CF)	34,962,774	1.26
NISA FX Hedged EAFE Future (SA)	31,527,942	1.13
L&G 5-15 Year TIPS (SA)	29,889,531	1.08
NISA EAFE Futures (SA)	26,416,049	0.95
NISA EM Futures (SA)	25,056,886	0.90
BNYM DB Dynamic Global Ex US Eq (CF)	22,393,696	0.81
NISA ST Sovereigns (SA)	17,088,318	0.61
NISA Cash and Carry (SA)	15,330,803	0.55
NISA 30 Year Treasury Futures (SA)	12,575,039	0.45
Agincourt FTSE NAREIT Equity REITs Index (SA)	9,148,357	0.33
Mellon Government STIF (CF)	2,091,318	0.08
BNYM Money Market Fund (SA)	2,011,449	0.07
COAERS USD (SA)	1,002,404	0.04
NISA S&P 500 Options (SA)	61,376	0.00

Rate of Return	
	QTD
Composite	-5.71
Benchmark	-7.08
Excess Return	1.37



Performance shown is net of fees. Calculation is based on monthly periodicity. Allocations shown may not sum up to 100% exactly due to rounding. See glossary for calculation definitions.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
US Equity										
BNYM Dynamic US Equity NL (SA)	195,778,258	7.05	-4.48	-26.59	-17.18	7.60	N/A	N/A	9.38	05/01/2018
S&P 500 Index (Cap Wtd)			-4.88	-23.87	-15.47	8.16	9.24	11.70	9.02	
Excess Return			0.40	-2.72	-1.71	-0.56	N/A	N/A	0.36	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	8.17	
Rank			25	82	51	41	N/A	N/A	17	
BNYM SciBeta US Max Decorrelation (SA)	113,787,075	4.09	-5.08	-21.50	-15.69	N/A	N/A	N/A	6.62	10/01/2020
SciBeta Max Decorrelation Index			-5.04	-21.42	-15.57	6.97	7.91	11.27	6.79	
Excess Return			-0.04	-0.08	-0.12	N/A	N/A	N/A	-0.17	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	3.39	
Rank			47	13	33	N/A	N/A	N/A	6	
TOBAM Max Diversification USA (SA)	101,289,954	3.65	-5.66	-24.12	-22.21	N/A	N/A	N/A	-2.28	10/01/2020
TOBAM Max Diversification Index			-5.67	-24.16	-22.20	3.29	5.98	10.75	-2.14	
Excess Return			0.01	0.04	-0.01	N/A	N/A	N/A	-0.14	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	3.39	
Rank			72	47	96	N/A	N/A	N/A	100	
L&G MSCI USA Index (CIT)	170,623,641	6.14	-4.71	-24.83	-17.25	N/A	N/A	N/A	4.14	10/01/2020
MSCI USA Index (Net)			-4.81	-25.08	-17.60	7.62	8.63	11.02	3.48	
Excess Return			0.10	0.25	0.35	N/A	N/A	N/A	0.66	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	3.39	
Rank			35	58	53	N/A	N/A	N/A	36	
SSGA MSCI USA EW Index (SA)	161,167,644	5.80	-4.71	-24.31	-18.72	N/A	N/A	N/A	6.70	11/01/2020
MSCI USA Equal Weighted Index (Net)			-4.87	-24.62	-19.15	5.17	6.28	10.10	6.21	
Excess Return			0.16	0.31	0.43	N/A	N/A	N/A	0.49	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	4.99	
Rank			35	49	78	N/A	N/A	N/A	25	
SSGA MSCI USA Small Cap Index (CF)	38,192,922	1.37	-2.32	-23.30	-20.52	N/A	N/A	N/A	7.70	11/01/2020
MSCI US Sm Cap Index (USD) (Net)			-2.44	-23.57	-20.89	5.34	5.08	9.45	7.26	
Excess Return			0.12	0.27	0.37	N/A	N/A	N/A	0.44	
IM U.S. Small Cap Equity (MF) Median			-3.47	-24.16	-19.95	4.91	4.07	8.59	8.22	
Rank			34	44	54	N/A	N/A	N/A	53	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NISA S&P 500 Futures (SA)	55,977,929	2.01	-4.70	-23.21	-14.71	N/A	N/A	N/A	5.69	02/01/2020
S&P 500 Index (Cap Wtd)			-4.88	-23.87	-15.47	8.16	9.24	11.70	5.74	
Excess Return			0.18	0.66	0.76	N/A	N/A	N/A	-0.05	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	4.80	
Rank			35	29	26	N/A	N/A	N/A	27	
NISA S&P 500 Options (SA)	61,376	0.00	-1.15	-99.02	-98.28	N/A	N/A	N/A	-96.18	07/01/2021
S&P 500 Index (Cap Wtd)			-4.88	-23.87	-15.47	8.16	9.24	11.70	-12.18	
Excess Return			3.73	-75.15	-82.81	N/A	N/A	N/A	-84.00	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	-13.76	
Rank			1	100	100	N/A	N/A	N/A	100	
L&G SciBeta Inflation Plus (SA)	78,440,962	2.82	-3.02	-22.51	N/A	N/A	N/A	N/A	-19.40	12/01/2021
SciBeta Inflation Plus Index			-3.01	-22.48	N/A	N/A	N/A	N/A	-19.35	
Excess Return			-0.01	-0.03	N/A	N/A	N/A	N/A	-0.05	
IM U.S. Large Cap Core Equity (MF) Median			-5.16	-24.48	-17.11	7.23	8.43	10.78	-20.99	
Rank			4	21	N/A	N/A	N/A	N/A	27	
Developed Markets Equity										
Walter Scott Dev Mkts Int'l Equity (SA)	151,530,702	5.45	-8.77	-32.29	-28.82	0.18	3.00	5.51	7.55	10/01/1992
MSCI EAFE Index (USD) (Net)			-9.36	-27.09	-25.13	-1.83	-0.84	3.67	4.91	
Excess Return			0.59	-5.20	-3.69	2.01	3.84	1.84	2.64	
IM All EAFE (MF) Median			-10.32	-28.17	-26.27	-1.65	-1.38	3.22	5.89	
Rank			16	86	79	11	2	7	6	
1607 Capital Partners Int'l Equity EAFE (SA)	100,966,052	3.63	-10.37	-31.05	-29.32	-0.29	-0.05	5.01	5.39	08/01/2010
90% MSCI EAFE/10% MSCI EM Index			-9.56	-27.07	-25.40	-1.80	-0.89	3.45	3.60	
Excess Return			-0.81	-3.98	-3.92	1.51	0.84	1.56	1.79	
IM International Core Equity (MF) Median			-10.38	-27.57	-25.76	-1.92	-1.43	3.22	3.34	
Rank			50	89	89	16	9	5	5	
BNYM DB Dynamic Global Ex US Eq (CF)	22,393,696	0.81	-10.65	-29.23	-27.74	-2.71	N/A	N/A	-1.81	09/01/2019
MSCI ACW Ex US Index (USD) (Net)			-9.91	-26.50	-25.17	-1.52	-0.81	3.01	-0.66	
Excess Return			-0.74	-2.73	-2.57	-1.19	N/A	N/A	-1.15	
IM ACWI Ex US Core (MF) Median			-10.38	-28.18	-26.10	-1.65	-0.91	3.20	-0.86	
Rank			59	74	77	77	N/A	N/A	74	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
NISA EAFE Futures (SA)	26,416,049	0.95	-9.86	-26.23	-24.25	N/A	N/A	N/A	-4.04	02/01/2020
MSCI EAFE Index (USD) (Net)			-9.36	-27.09	-25.13	-1.83	-0.84	3.67	-4.15	
Excess Return			-0.50	0.86	0.88	N/A	N/A	N/A	0.11	
IM All EAFE (MF) Median			-10.32	-28.17	-26.27	-1.65	-1.38	3.22	-3.91	
Rank			36	28	26	N/A	N/A	N/A	55	
NT MSCI World Ex US Small Cap Index (CF)	34,962,774	1.26	-10.02	-31.14	-30.65	-1.15	N/A	N/A	-2.41	08/01/2018
MSCI Wrld Ex US Sm Cap Index (USD) (Net)			-9.46	-31.07	-30.80	-1.27	-1.24	4.78	-2.61	
Excess Return			-0.56	-0.07	0.15	0.12	N/A	N/A	0.20	
IM International SMID Cap Equity (MF) Median			-9.93	-32.89	-32.32	-1.93	-1.94	4.12	-3.32	
Rank			52	40	40	39	N/A	N/A	32	
NISA FX Hedged EAFE Future (SA)	31,527,942	1.13	-2.97	-12.49	N/A	N/A	N/A	N/A	-12.49	01/01/2022
MSCI EAFE Index (USD) (Net) (Hedged)			-2.82	-13.05	-9.39	4.04	4.67	8.50	-13.05	
Excess Return			-0.15	0.56	N/A	N/A	N/A	N/A	0.56	
IM All EAFE (MF) Median			-10.32	-28.17	-26.27	-1.65	-1.38	3.22	-28.17	
Rank			1	1	N/A	N/A	N/A	N/A	1	
Emerging Markets Equity										
Baillie Gifford EM Equity Class 3 (MF)	101,510,817	3.65	-12.21	-34.01	-35.29	-4.20	-1.83	N/A	3.13	10/01/2016
MSCI Emerging Markets Index (USD) (Net)			-11.57	-27.16	-28.11	-2.07	-1.81	1.05	1.87	
Excess Return			-0.64	-6.85	-7.18	-2.13	-0.02	N/A	1.26	
IM Emerging Markets Equity (MF) Median			-11.00	-29.27	-29.88	-2.54	-2.37	0.91	1.26	
Rank			73	81	81	72	39	N/A	19	
L&G MSCI EM Index (CIT)	63,752,641	2.29	-11.64	-27.22	-28.21	N/A	N/A	N/A	-7.94	10/01/2020
MSCI Emerging Markets Index (USD) (Net)			-11.57	-27.16	-28.11	-2.07	-1.81	1.05	-7.82	
Excess Return			-0.07	-0.06	-0.10	N/A	N/A	N/A	-0.12	
IM Emerging Markets Equity (MF) Median			-11.00	-29.27	-29.88	-2.54	-2.37	0.91	-9.55	
Rank			63	32	31	N/A	N/A	N/A	41	
NISA EM Futures (SA)	25,056,886	0.90	-12.30	-26.59	-27.54	N/A	N/A	N/A	-4.39	02/01/2020
MSCI Emerging Markets Index (USD) (Net)			-11.57	-27.16	-28.11	-2.07	-1.81	1.05	-4.64	
Excess Return			-0.73	0.57	0.57	N/A	N/A	N/A	0.25	
IM Emerging Markets Equity (MF) Median			-11.00	-29.27	-29.88	-2.54	-2.37	0.91	-5.06	
Rank			76	26	28	N/A	N/A	N/A	43	

Performance shown is net of fees and is annualized for periods greater than one year.



Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Real Estate Equity										
Principal US Property Account (CF)	196,421,882	7.07	0.46	11.12	22.29	11.68	9.98	10.78	8.02	09/01/2004
NCREIF ODCE Index (AWA) (Net)			0.31	12.36	20.96	11.38	9.26	9.91	7.76	
Excess Return			0.15	-1.24	1.33	0.30	0.72	0.87	0.26	
Fidelity US REITs Completion Index (SA)	116,244,318	4.18	-10.10	-24.00	-13.92	N/A	N/A	N/A	-0.72	01/01/2020
Fidelity REITs Completion Index			-9.95	-23.86	-13.75	N/A	N/A	N/A	-0.60	
Excess Return			-0.15	-0.14	-0.17	N/A	N/A	N/A	-0.12	
Agincourt FTSE NAREIT Equity REITs Index (SA)	9,148,357	0.33	-9.85	-27.26	-15.56	N/A	N/A	N/A	-8.30	05/01/2021
FTSE NAREIT All Eq REITs Index (TR)			-10.83	-27.93	-16.27	-1.10	4.10	6.99	-9.40	
Excess Return			0.98	0.67	0.71	N/A	N/A	N/A	1.10	
Infrastructure Equity										
IFM Global Infrastructure A (CF)	84,881,889	3.05	0.18	3.98	7.79	N/A	N/A	N/A	11.27	04/01/2020
S&P Gbl Infrastructure Index (Net)			-9.81	-10.66	-6.72	-0.91	1.22	4.76	11.48	
Excess Return			9.99	14.64	14.51	N/A	N/A	N/A	-0.21	
Fidelity DJ Brookfield Infrastructure Index (SA)	57,135,459	2.06	-11.03	-13.52	-7.58	N/A	N/A	N/A	-1.69	01/01/2020
DJ Brookfield Gbl Infrastructure Comp Idx			-10.23	-13.07	-7.24	-0.70	1.98	5.16	-2.01	
Excess Return			-0.80	-0.45	-0.34	N/A	N/A	N/A	0.32	
US Treasuries										
Agincourt 1-3 Year Treasury (SA)	152,817,260	5.50	-1.61	-4.42	-4.96	-0.62	N/A	N/A	0.06	05/01/2019
Bloomberg US Trsy 1-3 Yr Index			-1.55	-4.52	-5.07	-0.54	0.54	0.59	0.07	
Excess Return			-0.06	0.10	0.11	-0.08	N/A	N/A	-0.01	
IM U.S. Short Term Treasury/Govt Bonds (MF) Median			-1.76	-4.99	-5.53	-0.93	0.14	0.24	-0.42	
Rank			40	27	29	35	N/A	N/A	19	
Agincourt 1-5 Yr US TIPS (SA)	61,578,332	2.22	-3.20	-4.70	-3.64	N/A	N/A	N/A	2.19	01/01/2020
Bloomberg US TIPS 1-5 Yr Index			-3.12	-5.19	-4.09	2.27	2.24	1.21	2.06	
Excess Return			-0.08	0.49	0.45	N/A	N/A	N/A	0.13	
IM U.S. TIPS (MF) Median			-5.04	-13.53	-11.72	0.76	1.75	0.66	0.55	
Rank			21	8	9	N/A	N/A	N/A	11	

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Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Agincourt 10 Year Treasury (SA)	47,225,505	1.70	-6.25	-16.93	-16.26	-4.48	N/A	N/A	-1.66	05/01/2019
Bloomberg US Trsy Bellwethers 10 Yr Index			-5.83	-16.85	-16.29	-4.50	-0.75	0.12	-1.73	
Excess Return			-0.42	-0.08	0.03	0.02	N/A	N/A	0.07	
IM U.S. Intermediate Government (MF) Median			-4.92	-12.79	-12.97	-3.02	-0.59	0.18	-1.50	
Rank			100	100	100	100	N/A	N/A	58	
NISA 10 Year Treasury Futures (SA)	40,890,819	1.47	-4.54	-13.40	-12.77	N/A	N/A	N/A	-7.38	05/01/2020
Bloomberg US Trsy Bellwethers 10 Yr Index			-5.83	-16.85	-16.29	-4.50	-0.75	0.12	-9.45	
Excess Return			1.29	3.45	3.52	N/A	N/A	N/A	2.07	
IM U.S. Intermediate Government (MF) Median			-4.92	-12.79	-12.97	-3.02	-0.59	0.18	-5.91	
Rank			22	71	49	N/A	N/A	N/A	99	
L&G 5-15 Year TIPS (SA)	29,889,531	1.08	-5.57	-13.89	-12.09	N/A	N/A	N/A	-12.09	10/01/2021
Bloomberg US TIPS 5-15 Year Index			-5.16	-13.80	-12.03	0.84	2.03	0.99	-12.03	
Excess Return			-0.41	-0.09	-0.06	N/A	N/A	N/A	-0.06	
IM U.S. TIPS (MF) Median			-4.91	-13.18	-11.38	1.51	2.32	1.15	-11.38	
Rank			94	86	89	N/A	N/A	N/A	89	
NISA 30 Year Treasury Futures (SA)	12,575,039	0.45	-6.74	-23.56	-21.08	N/A	N/A	N/A	-14.18	05/01/2020
Bloomberg US Trsy Bellwethers 30 Yr Index			-10.36	-31.49	-28.27	-9.63	-1.97	0.17	-18.79	
Excess Return			3.62	7.93	7.19	N/A	N/A	N/A	4.61	
IM U.S. Long Term Treasury/Govt Bond (MF) Median			-4.92	-13.43	-13.50	-3.54	-0.69	0.32	-6.84	
Rank			79	79	79	N/A	N/A	N/A	80	
Hoisington Macroeconomic US Treasuries (SA)	83,124,694	2.99	-11.02	-31.91	-29.32	-9.72	N/A	N/A	-3.52	05/01/2019
Bloomberg US Trsy Index			-4.35	-13.09	-12.94	-3.11	-0.23	0.50	-1.12	
Excess Return			-6.67	-18.82	-16.38	-6.61	N/A	N/A	-2.40	
IM U.S. Long Term Treasury/Govt Bond (MF) Median			-4.92	-13.43	-13.50	-3.54	-0.69	0.32	-1.67	
Rank			95	95	96	96	N/A	N/A	89	
US Mortgages										
DoubleLine MBS (SA)	96,109,041	3.46	-5.68	-13.33	-13.74	-3.63	N/A	N/A	-3.18	08/01/2019
Bloomberg US MBS Index (Unhgd)			-5.35	-13.66	-13.98	-3.67	-0.92	0.51	-3.19	
Excess Return			-0.33	0.33	0.24	0.04	N/A	N/A	0.01	
IM U.S. Mortgage Backed Bonds (MF) Median			-5.15	-12.97	-13.70	-3.55	-0.99	0.28	-3.07	
Rank			81	58	51	54	N/A	N/A	59	

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Composite: Total Fund
Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
US Credit										
PGIM US IG Corporate Bond (CIT)	102,417,305	3.69	-5.00	-19.41	-19.25	-3.42	N/A	N/A	-2.23	08/01/2019
Bloomberg US Crdt Index			-4.95	-18.07	-17.89	-3.61	-0.05	1.58	-2.68	
Excess Return			-0.05	-1.34	-1.36	0.19	N/A	N/A	0.45	
IM U.S. Corporate Bonds (MF) Median			-4.83	-18.53	-18.50	-3.38	-0.18	1.56	-2.59	
Rank			67	73	69	51	N/A	N/A	34	
Asset Allocation										
Agincourt Passive Index (SA)	100,723,920	3.62	-5.59	-20.44	-17.43	N/A	N/A	N/A	-7.50	01/01/2021
Passive Benchmark			-6.82	-23.27	-20.41	0.14	1.96	4.12	-9.81	
Excess Return			1.23	2.83	2.98	N/A	N/A	N/A	2.31	
Commodities & Other										
NISA Gold Futures (SA)	35,071,465	1.26	-7.82	-7.33	-4.11	N/A	N/A	N/A	-0.17	05/01/2020
Bloomberg Gold Sub Index (TR)			-7.90	-9.31	-5.72	2.76	4.18	-1.47	-2.24	
Excess Return			0.08	1.98	1.61	N/A	N/A	N/A	2.07	
US Dollar Instruments										
Agincourt 1-3 Month Treasury (SA)	41,543,930	1.50	0.49	0.60	0.60	0.51	N/A	N/A	0.73	05/01/2019
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.77	
Excess Return			0.02	-0.03	-0.04	-0.04	N/A	N/A	-0.04	
Mellon Government STIF (CF)	2,091,318	0.08	0.47	0.59	0.59	N/A	N/A	N/A	0.35	02/01/2021
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.40	
Excess Return			0.00	-0.04	-0.05	N/A	N/A	N/A	-0.05	
COAERS USD (SA)	1,002,404	0.04	0.20	0.23	0.23	N/A	N/A	N/A	0.10	05/01/2020
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.31	
Excess Return			-0.27	-0.40	-0.41	N/A	N/A	N/A	-0.21	
BNYM Money Market Fund (SA)	2,011,449	0.07	0.44	0.57	N/A	N/A	N/A	N/A	0.57	01/01/2022
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.63	
Excess Return			-0.03	-0.06	N/A	N/A	N/A	N/A	-0.06	
NISA Cash and Carry (SA)	15,330,803	0.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.47	
Excess Return			N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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Composite: Total Fund
 Asset Allocation & Performance - Net of Fees

As of September 30, 2022

	Allocation		Rate of Return (%)							
	Market Value (\$)	%	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	Since Incep.	Inception Date
Other Currencies										
NISA ST Sovereigns (SA)	17,088,318	0.61	0.52	0.75	N/A	N/A	N/A	N/A	0.75	01/01/2022
Bloomberg US T-Bills 1-3 Mo Index			0.47	0.63	0.64	0.55	1.10	0.64	0.63	
Excess Return			0.05	0.12	N/A	N/A	N/A	N/A	0.12	

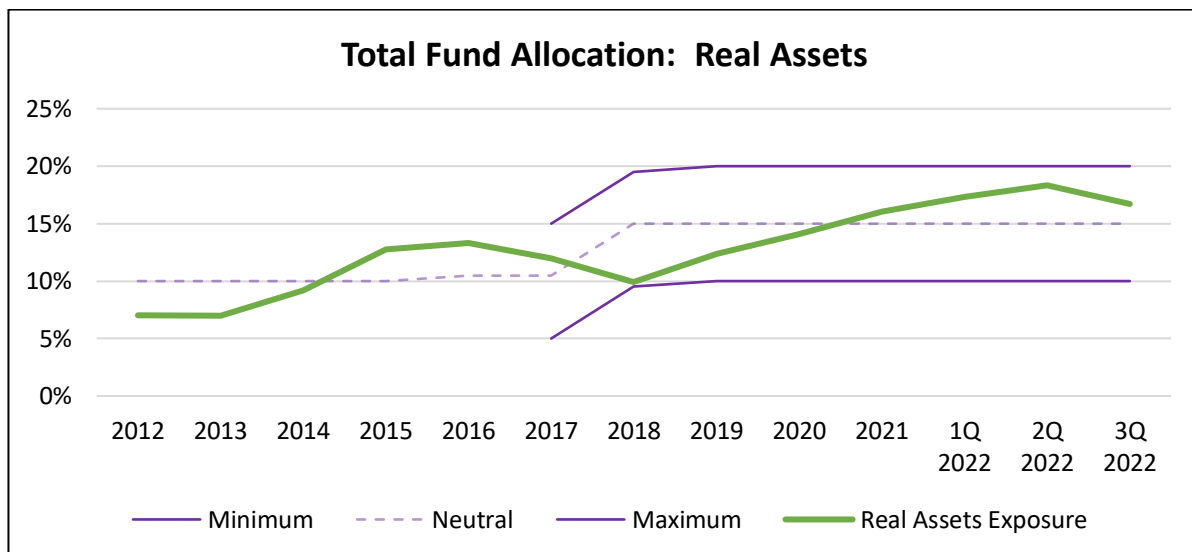
Performance shown is net of fees and is annualized for periods greater than one year.



Historical Context of Real Assets

The Fund has long maintained exposure to Real Assets strategies in varying forms over the years. Beginning in 2004, Real Estate was listed in the Strategic Asset Allocation as standalone asset class and was represented by a single line-item mandate. In 2012, the Board adopted a new Strategic Asset Allocation which included a major asset class called Alternatives with Real Assets included as a sub-asset class. This new sub-asset class would hold commodities, master limited partnerships (MLPs), and private energy.

As part of a multiyear restructuring of the investment program, Real Assets was established as a standalone major asset class in the Strategic Asset Allocation in 2017, with Real Estate and Infrastructure as its sub-asset classes. Though the Infrastructure sub-asset class was adopted in 2017, initial allocations to managers would not be made until the first half of 2020. The below chart shows the target and allocation to Real Assets over time:

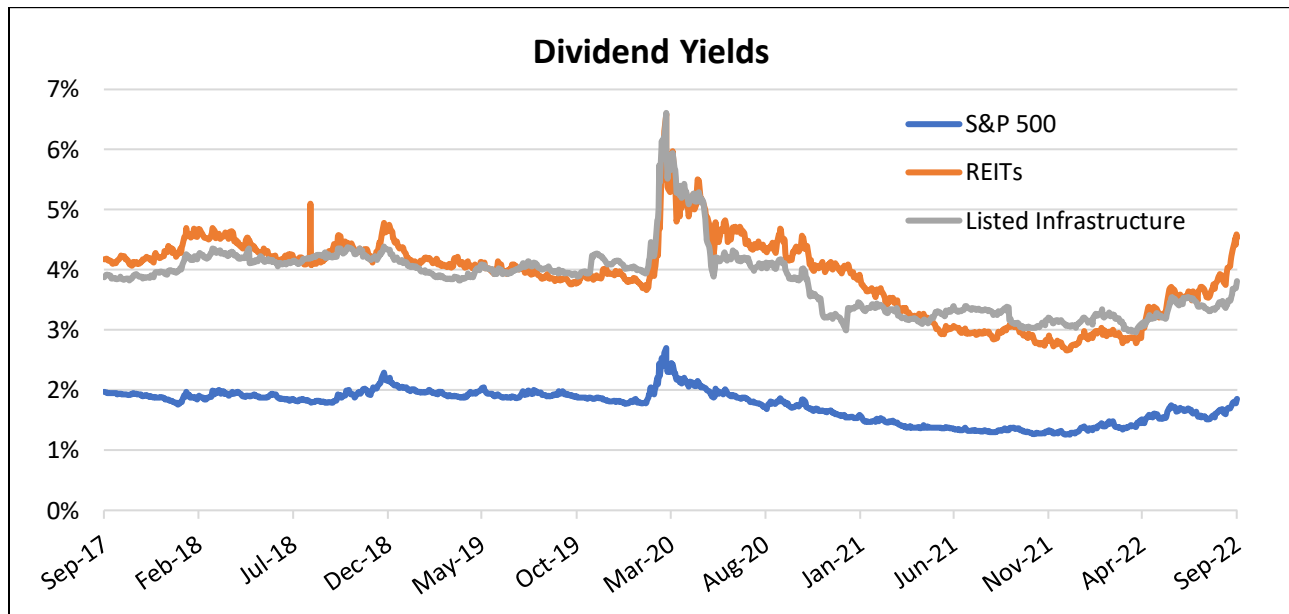


Portfolio Role

Diversification: Real Assets generally provides underlying exposure to hard assets, such as buildings or infrastructure assets, which provide a different risk and return profile than many other investments in the Fund. Given that many Fund investments are in financial assets, like stocks and bonds, the performance of Real Assets strategies tend to be driven by differentiated underlying return sources.

Inflation: Historically, Real Assets have outperformed other asset classes during periods of heightened inflation. The underlying assets tend to increase in value alongside inflation given their tangible nature, unlike many financial assets which do not. Additionally, oftentimes these investments have the ability to pass along inflation increases by raising rents to their tenants or users, thereby increasing revenues during inflationary times.

Income: Real Assets tend to exhibit higher yields than public equity securities as a higher proportion of income is typically passed along to investors. Therefore, these strategies tend to be less dependent on price appreciation and have a larger portion of their total returns coming from income. As such, the return profile for these investments is expected to fall in between that for equities, which are more dependent on price appreciation, and fixed income, which are more dependent on current yields.

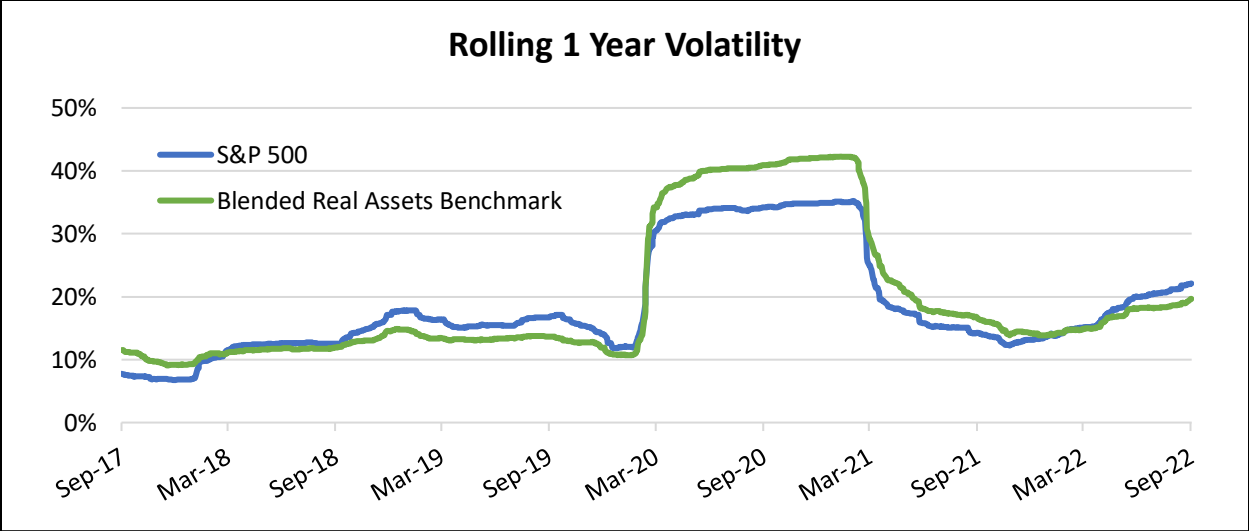


Benchmarking

The benchmark for Real Assets consists of a neutral-weighted blend of the two sub-asset class benchmarks and is comprised of 67% Real Estate and 33% Infrastructure. Consistent with the benchmarking approach across the total Fund and the Boards adopted investment beliefs, these benchmarks consist of the most widely used public markets indices for the desired asset class and give exposure to REITs (real estate investment trusts) and listed infrastructure companies.

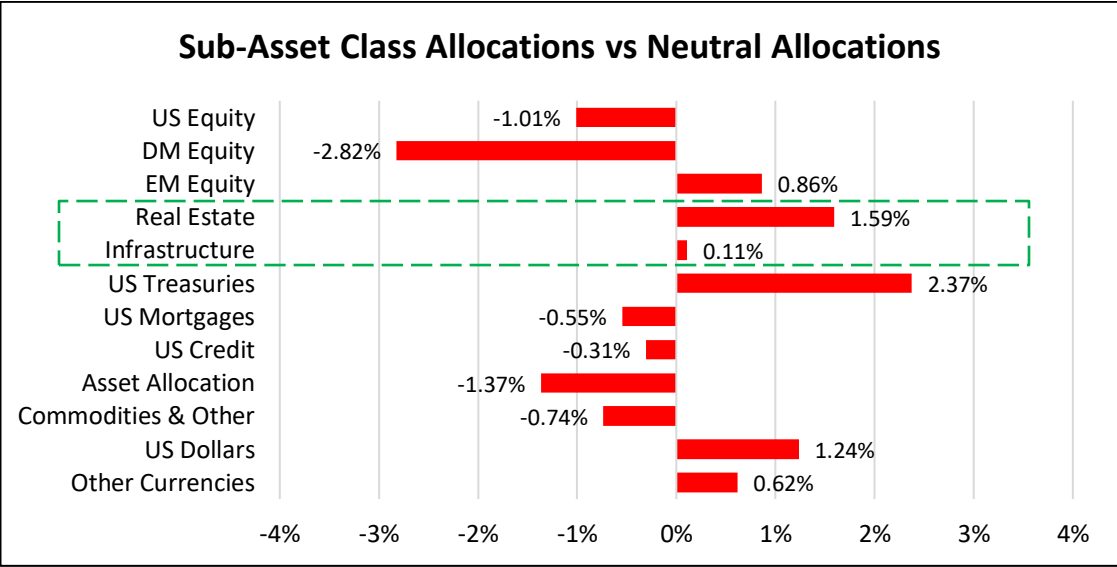
- Real Estate's benchmark is the FTSE NAREIT Equity REITs Total Return Index, which is a market cap weighted index of publicly listed US REITs, excluding timberland and infrastructure.
- Infrastructure's benchmark is the S&P Global Infrastructure Net Total Return Index, which represents 75 global infrastructure companies across the energy, utilities, and industrial sectors.

Given that these public markets benchmarks invest in publicly traded REITs and infrastructure companies, they tend to exhibit comparable levels of volatility to listed equities, with modest deviations above and below.



Real Assets Current Portfolio and Positioning

In the Strategic Asset Allocation, the Fund has a neutral allocation to Real Assets of 15%, which includes 10% in Real Estate and 5% in Infrastructure. As of the end of Q3 2022, Fund positioning was modestly overweight Real Assets at 16.7% given their significant relative outperformance year to date. This asset class overweight is mainly through Real Estate positioning at 11.6% of the Fund, while Infrastructure is roughly in-line with its neutral allocation at 5.1%.



The Fund has only two private markets strategies in the entire portfolio, both of which are contained in Real Assets. One of those investments is a core real estate fund, and the other is a diversified infrastructure fund. These strategies complement the public securities in each of the respective sub-asset classes by providing underlying exposures and valuation methodologies that are not available in the public markets. Approximately 60% of the total asset class is invested in these core, open-ended, private markets strategies.

The remaining ~40% of the asset class is implemented in public markets strategies which provide lower costs and higher liquidity for rebalancing purposes. These public markets strategies are all passively implemented as higher fees are common for actively managed strategies in this asset class.

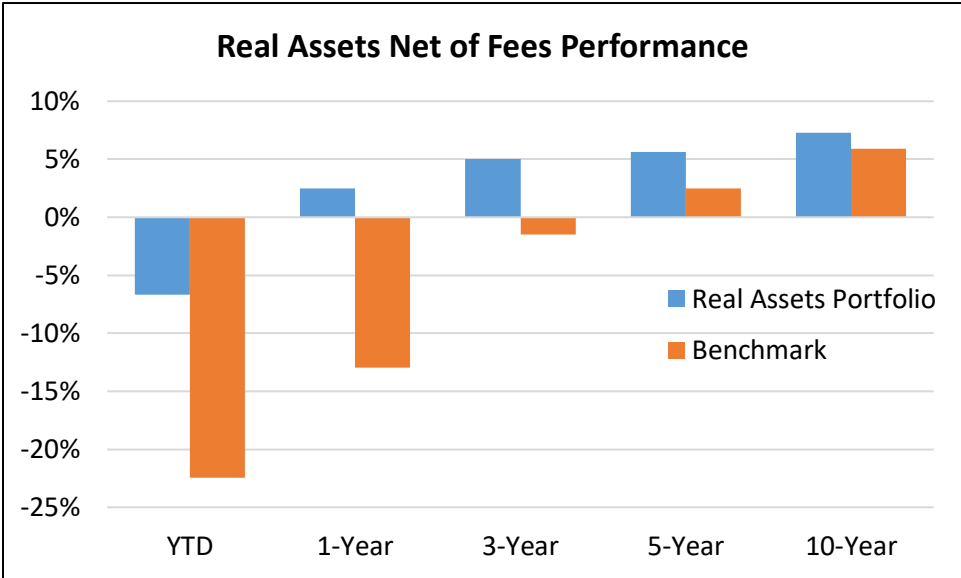
Risk and Return Characteristics

Market Commentary: In what has been a challenging year in 2022, every major asset class benchmark is down 20%+ for the year through the third quarter, with the exception of Cash & Equivalents.

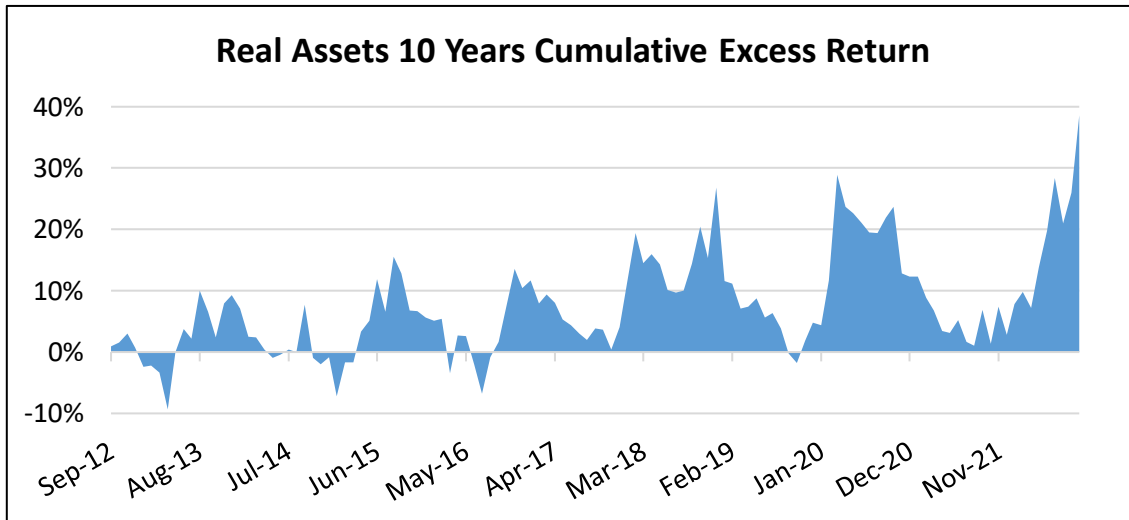
The Real Assets benchmark is no exception and is down -22% year to date. The sub-asset classes within Real Assets had mixed results with the Real Estate component down -28% and the Infrastructure component down -10%. Notably, exposure to infrastructure has offered better diversification benefits and has significantly outperformed both public equities and real estate. This outperformance is largely attributable to the energy sector exposure which has had a positive year and kept the rest of the index from being down further. In Real Estate most publicly traded REITs are down on the year as these securities have lost some of their hoped-for diversification benefits.

Private markets generally lag public securities in marking-to-market their holdings, and the Real Assets portfolio has experienced this. Both private funds in the portfolio have posted positive returns for the year through September, and future performance bears close monitoring.

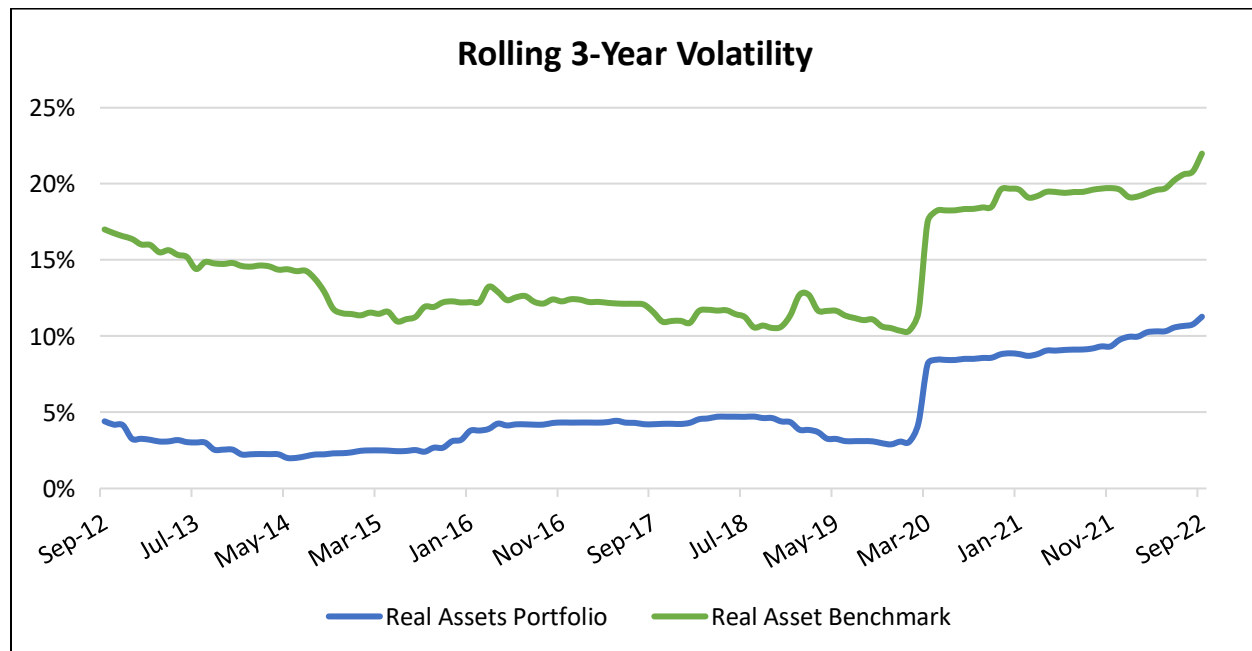
Returns: The Real Assets portfolio has experienced strong absolute returns over the longer term and has provided significant outperformance compared to its benchmark in the shorter term. This asset class has returned -6.7% year-to-date, exceeding its benchmark by a significant 15.8%.



This large outperformance is due nearly entirely to the choice to implement in private markets strategies as valuations in these strategy types are much slower to change during highly volatile markets. When looking at excess returns of the Real Asset portfolio over time, the cyclical patterns demonstrate how private markets can diversify the portfolio's return during public market volatility.



Volatility: As discussed previously, the benchmark for Real Assets exhibits volatility levels near to that seen in the public equity market as this benchmark also consists of publicly traded real estate investment trusts and infrastructure companies. Realized portfolio volatility for the Fund, however, has historically been less than half the volatility of its benchmark. This reduction in portfolio volatility is attributable to investments in private markets which experience much less observed volatility. This mismatch between implementation and benchmark contributes to significant levels of measured tracking error.



Summary

The Real Assets portfolio continues to provide diversification of returns and a differentiated risk profile to the Fund. This is primarily accomplished by gaining exposure to different investment vehicles, asset types, and management styles than cannot be found in the rest of the portfolio. The two private investments in this asset class are the only investments in such strategies across the Fund, and both investments continue to perform as expected by lowering overall volatility and offering competitive returns. The resulting allocation has provided significant value to the Fund in what has been a challenging market environment.



Real Assets Strategic Overview

Ty Sorrel

Director of Investment Implementation

November 18, 2022

Considering the Role of Real Assets

- Real assets enhance the diversification of a portfolio by increasing the types of investments not captured in traditional stock and bond portfolios
- Real assets typically distribute income or dividends at greater rates than stocks, so their risk-return profile stands in between stocks and bonds
- Historically, real assets have been an inflation hedge through asset appreciation and through the companies' abilities to pass along price increases

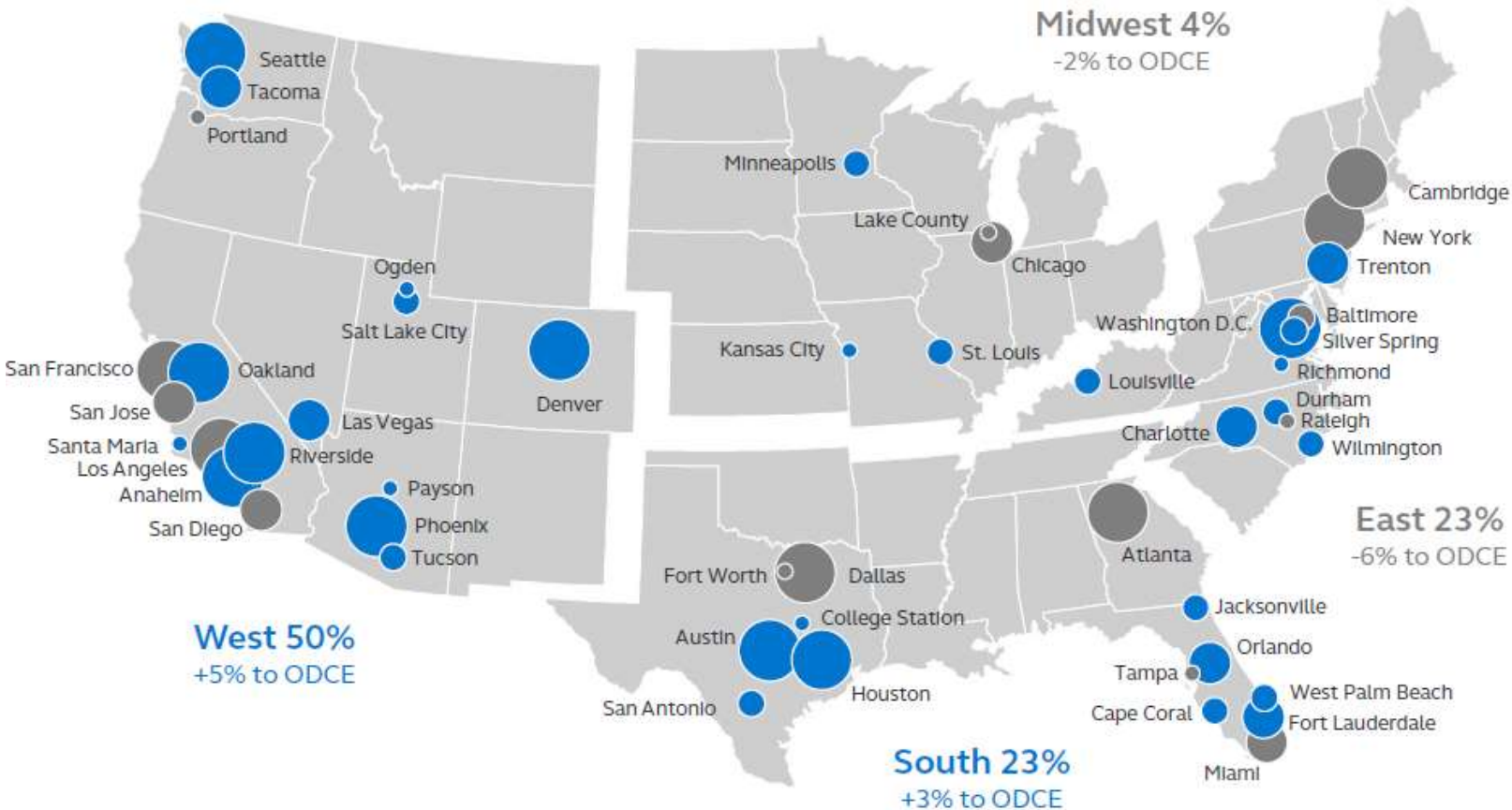
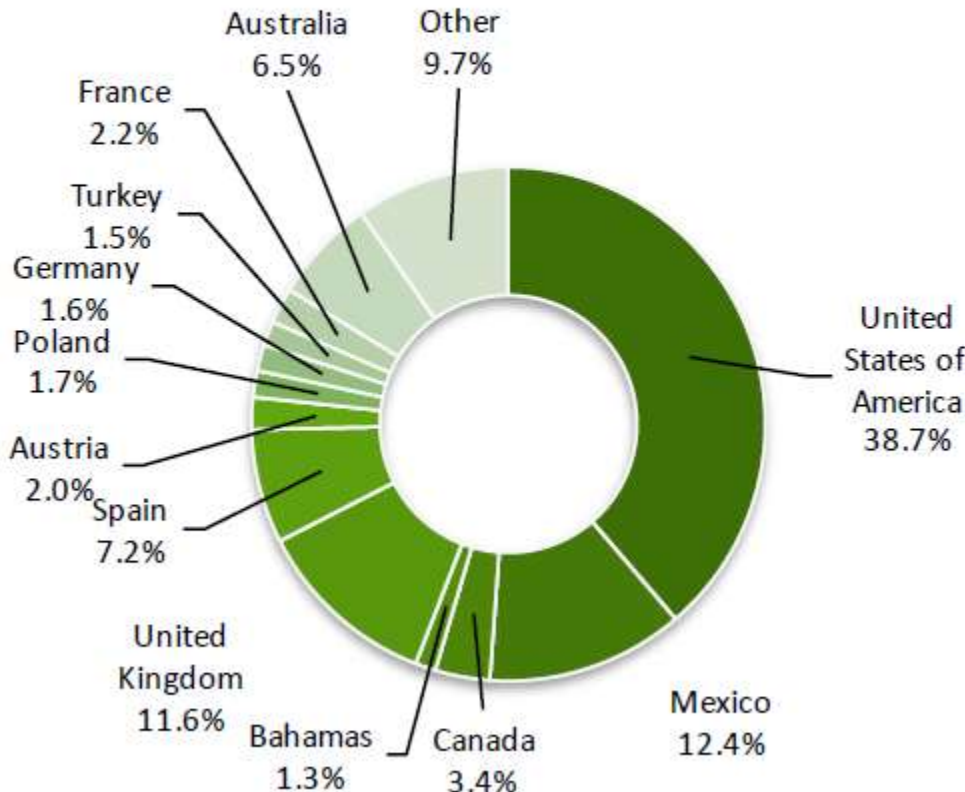


Real Assets Geographic Diversification

Within the Infrastructure portfolio, the Fund is globally diversified with international developed and even some emerging market exposures

Within the Real Estate portfolio, the Fund only has exposure to US properties, though the exposure is diversified across the US and across property type

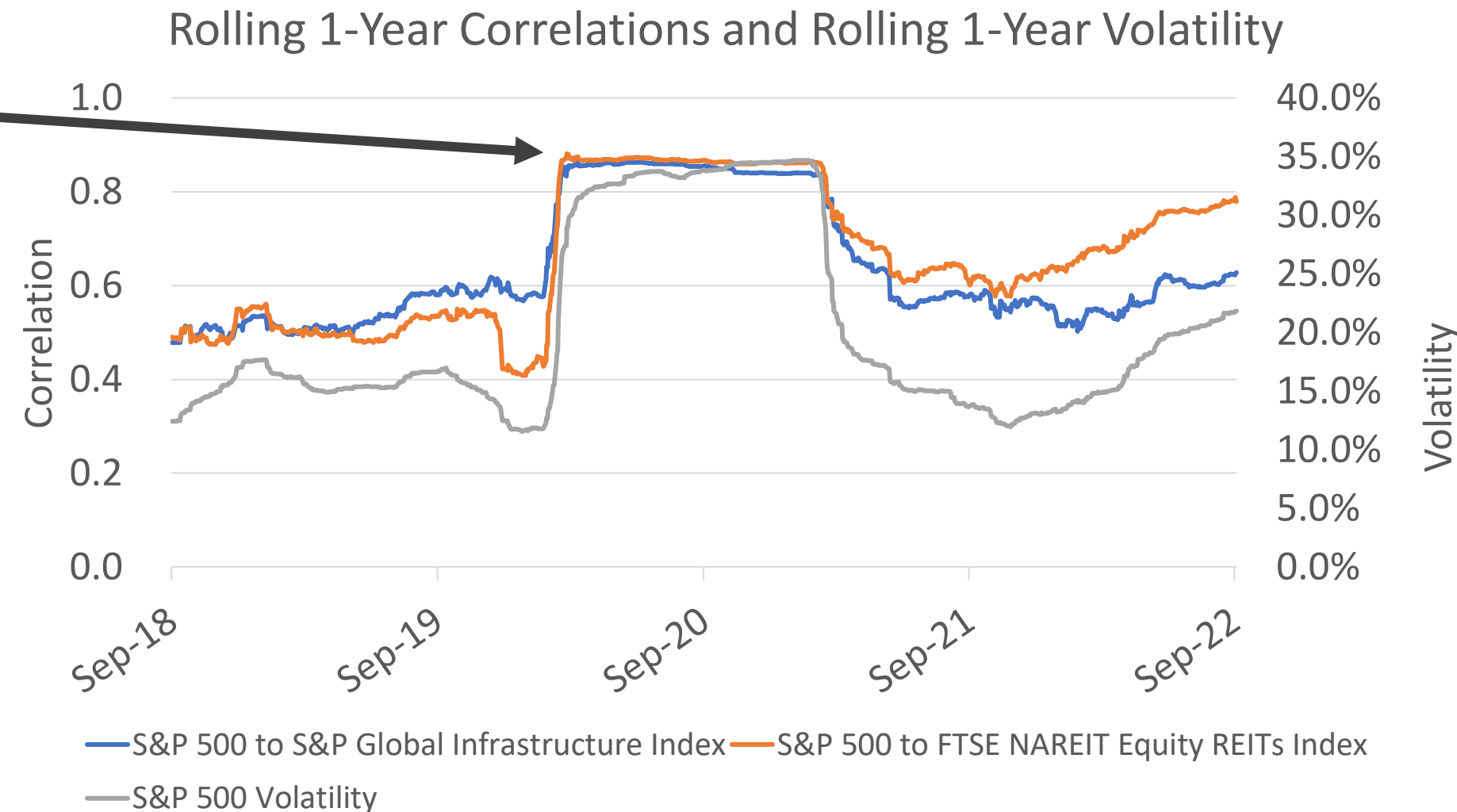
Geographic weightings



Real Assets in the Public Markets

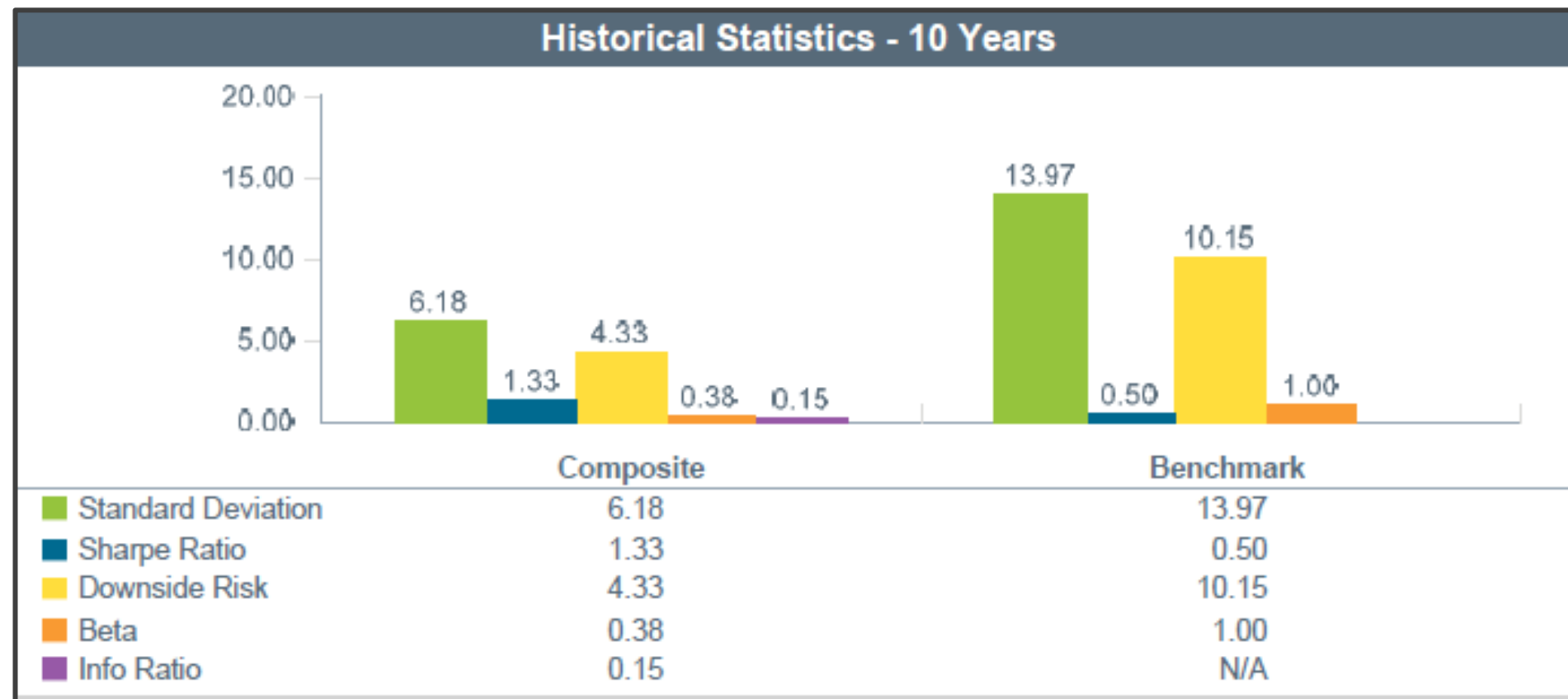
- One of the characteristics of publicly traded securities, including REITs and listed infrastructure, is that correlations increase during market duress
- The COVID lockdowns demonstrate that sharp increases in equity volatility can cause other asset classes to lose their diversification benefits as correlations move toward 1.0

Publicly listed real estate and infrastructure securities lost their diversification benefits (blue and orange) at the exact wrong time when volatility increased (grey)



Real Assets in Private Markets

- Private market investments benefit from not having to mark-to-market their values daily, which results in a smoother return profile
- Though the management fees of private investments tends to be higher than public security mandates, private funds' reduced volatility can enhance the overall portfolio risk-return profile

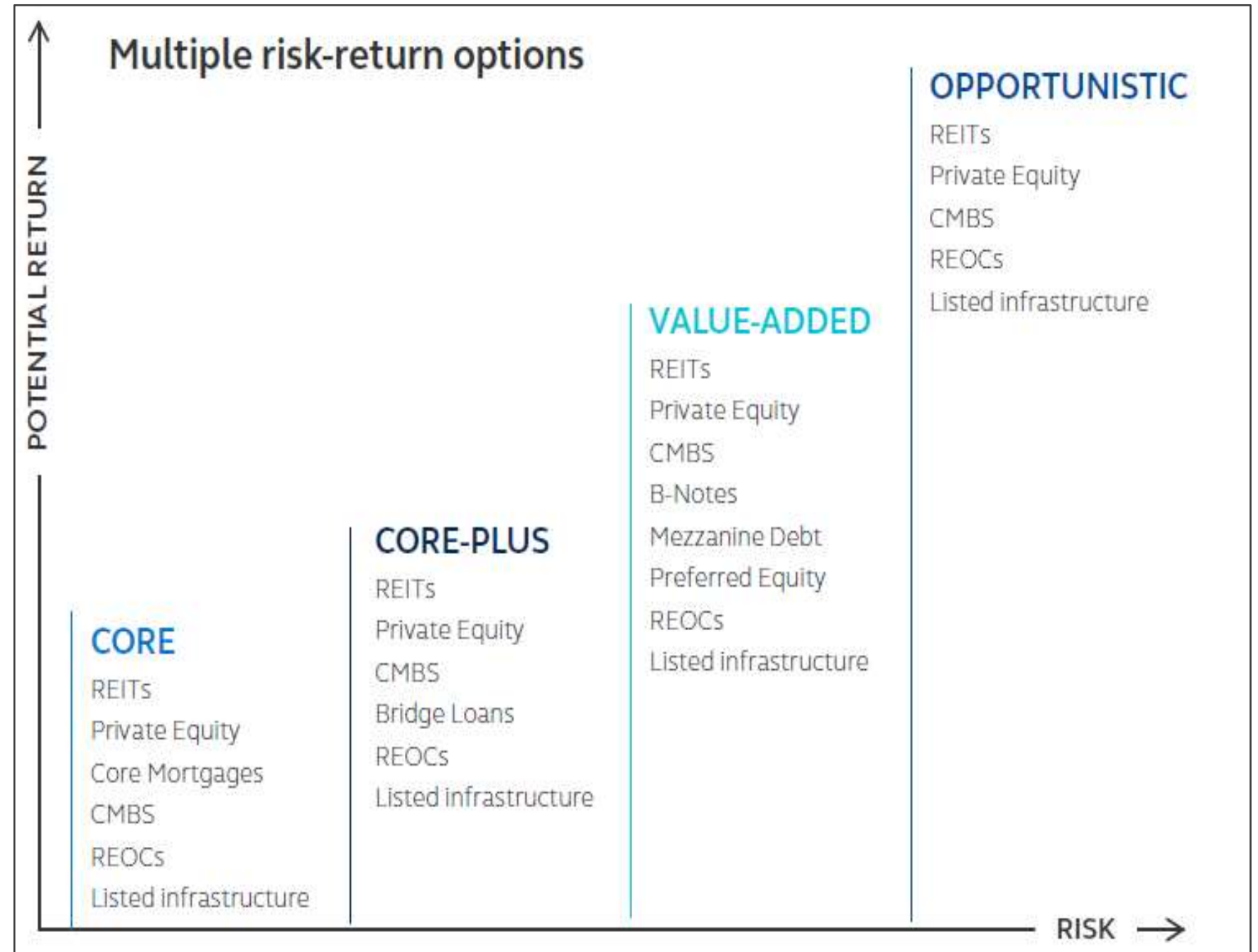
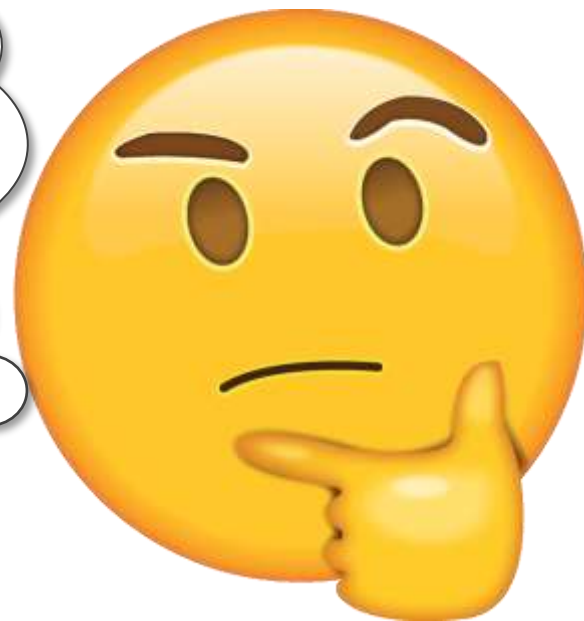


These diversification benefits are not a panacea as the underlying economic risks and assets are still similar between public and private markets

Available Options in Private Markets

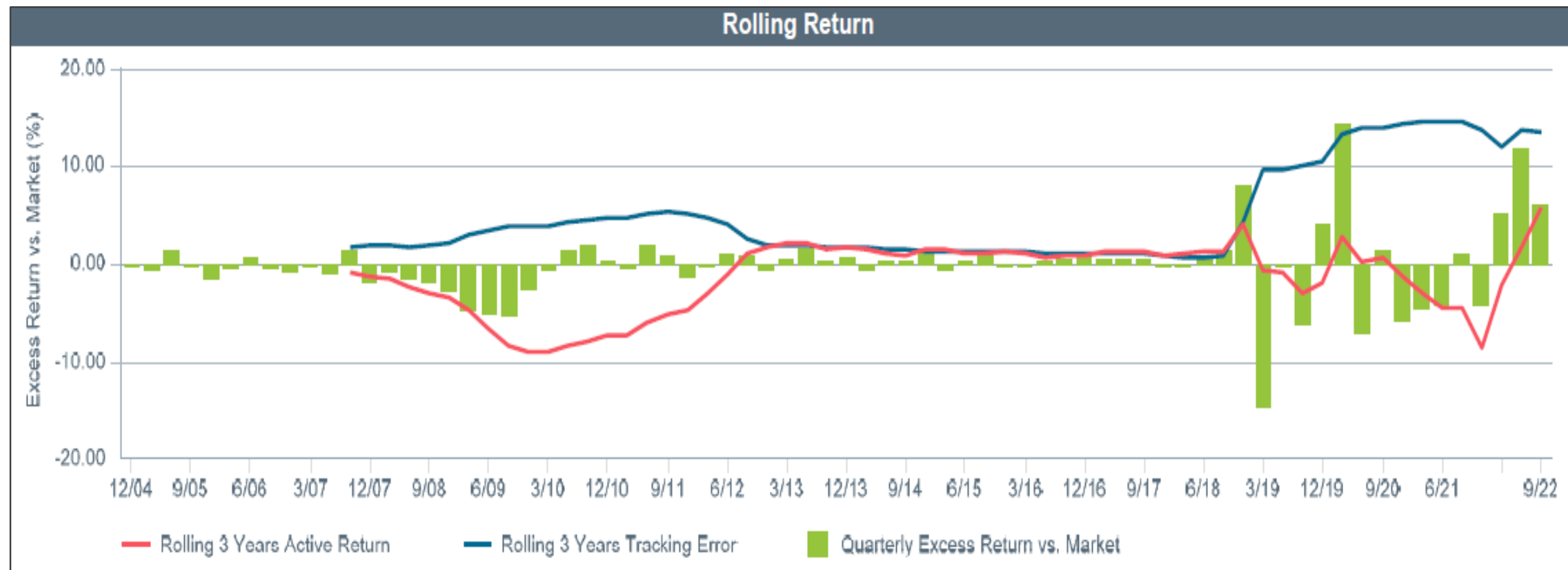
- Currently, COAERS' private investments in real estate and infrastructure are considered "core" investments, which typically have conservative risk-return profiles
- Adding differentiated exposures within real assets could enhance returns of the Fund and add new investment exposures within the asset class

Should the Fund have other styles of exposures within real assets private markets?



Real Assets – Benchmarks

- Currently, the Real Assets asset class is benchmarked to a combination of the public real estate and public infrastructure benchmarks
- This result is the real assets portfolio experiencing higher tracking error than elsewhere in the portfolio
- Next year, Staff will review the benchmarks as part of the Asset Allocation study

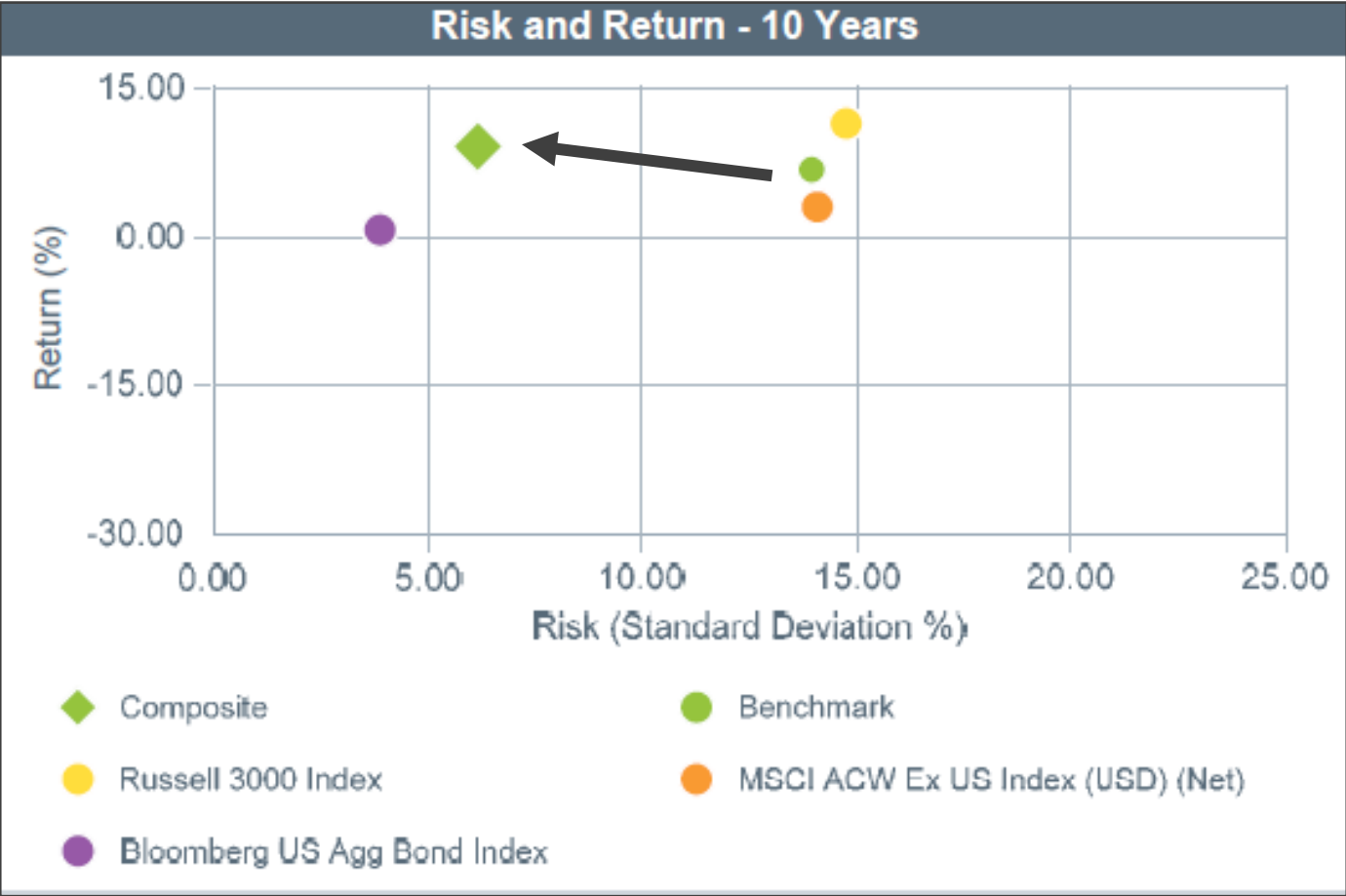


Reduced portfolio volatility contributes to higher tracking error

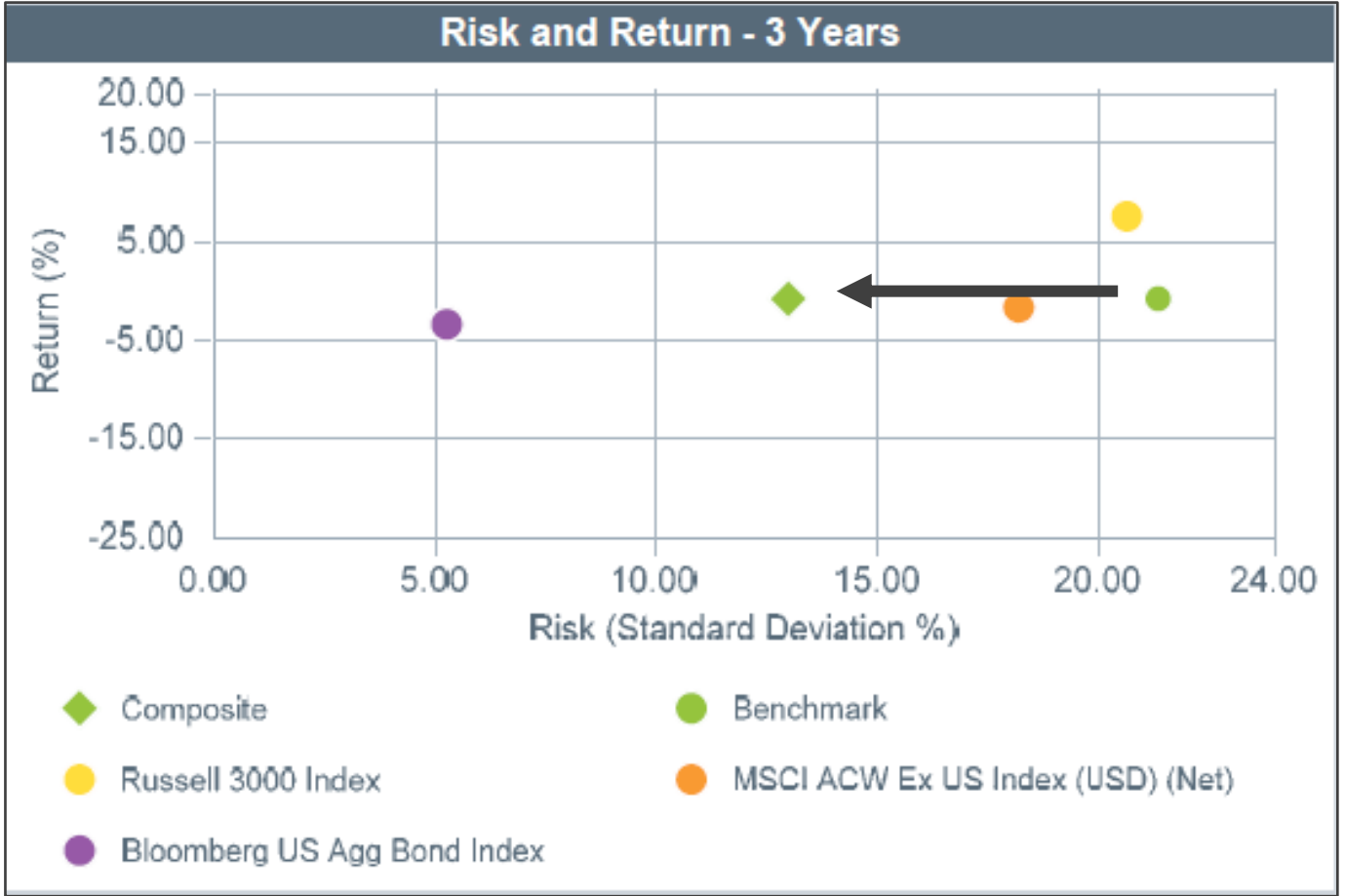
Risk Profiles

- Real Estate and Infrastructure performance has benefited from the diversified strategies within each sub-asset class
- The current combination of implementation styles creates desirable risk-return profiles by experiencing significantly less risk alongside comparable levels of return

Real Estate



Infrastructure



Current Allocations: 60/40 Split Between Public and Private

- The current allocation within Real Estate and Infrastructure combines the benefits of public and private markets strategies
- As part of the Asset Allocation study, Staff will continue to evaluate other implementation styles and allocation mixes in the context of the overall portfolio

8. Discuss and consider 2023 Investment Budget

Presented by David Stafford and David Kushner

AGENDA ITEM 8:
Discuss and consider 2023 Investment Budget

AGENDA ITEM OBJECTIVE

This item supports the Board's fiduciary oversight of the Fund, including defraying reasonable expenses of administering the system.

RELEVANCE TO STRATEGIC PLAN

This item allows the Committee to review Fund performance and assess the extent to which the System is meeting **COAERS Strategic Plan Goal 1: Maintain a Sustainable Retirement System** since long-term investment performance is reduced by costs incurred.

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer the 2023 Investment budget to the Board for approval.

BACKGROUND

COAERS embarked on a multi-year transformation of its approach to investment governance and strategy. The effort supported the System's mission of providing reliable retirement benefits and its vision of being recognized as the standard of excellence in public pension plans. The effort, also built upon a long tradition of stewardship, has resulted in a significant reduction in investment costs alongside strong value add for the Fund.

Staff has developed a proposed investment resource budget for 2023 that is aligned with the organization's mission, vision, and goals. Staff will review these figures and items for consideration in 2023.

ATTACHMENTS

1. Staff Presentation "Investment Resources"
2. Proposed 2023 Investment Budget
3. 2022 Investment Budget Progress



COAERS Investment Resources

David Stafford

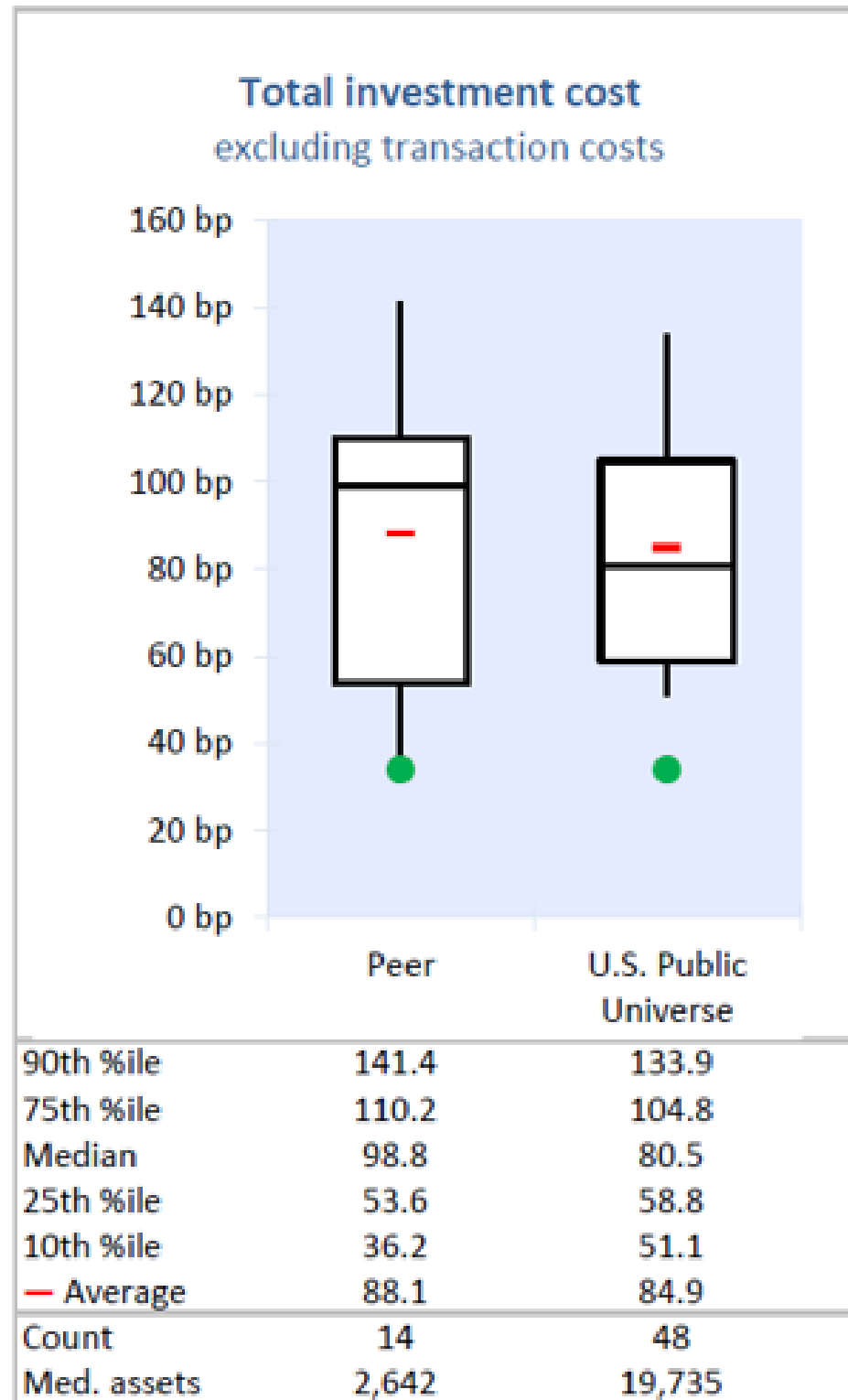
Deputy Chief Investment Officer

November 18, 2022

COAERS Investment Beliefs

- “Implementation should occur passively and in public markets unless a high likelihood of success on a risk-adjusted, net-of-fees basis can be expected from other approaches.”
 - “Costs can significantly reduce net returns and therefore must be carefully measured and managed when making decisions regarding investment strategy and implementation.”
- THESE BELIEFS HAVE TRANSLATED INTO SIGNIFICANT VALUE ADDED AND COST SAVINGS FOR THE SYSTEM SINCE 2015

2019 CEM Benchmarking – Key Points



- In its last major cost benchmarking exercise in 2019, COAERS ranked in the top 6-8% for total investment cost effectiveness
- Public plan universe
 - Median = 80.5 bps
 - Lowest quartile = 58.8 bps
- Peer plans:
 - Median = 98.8 bps
 - Lowest quartile = 53.6 bps

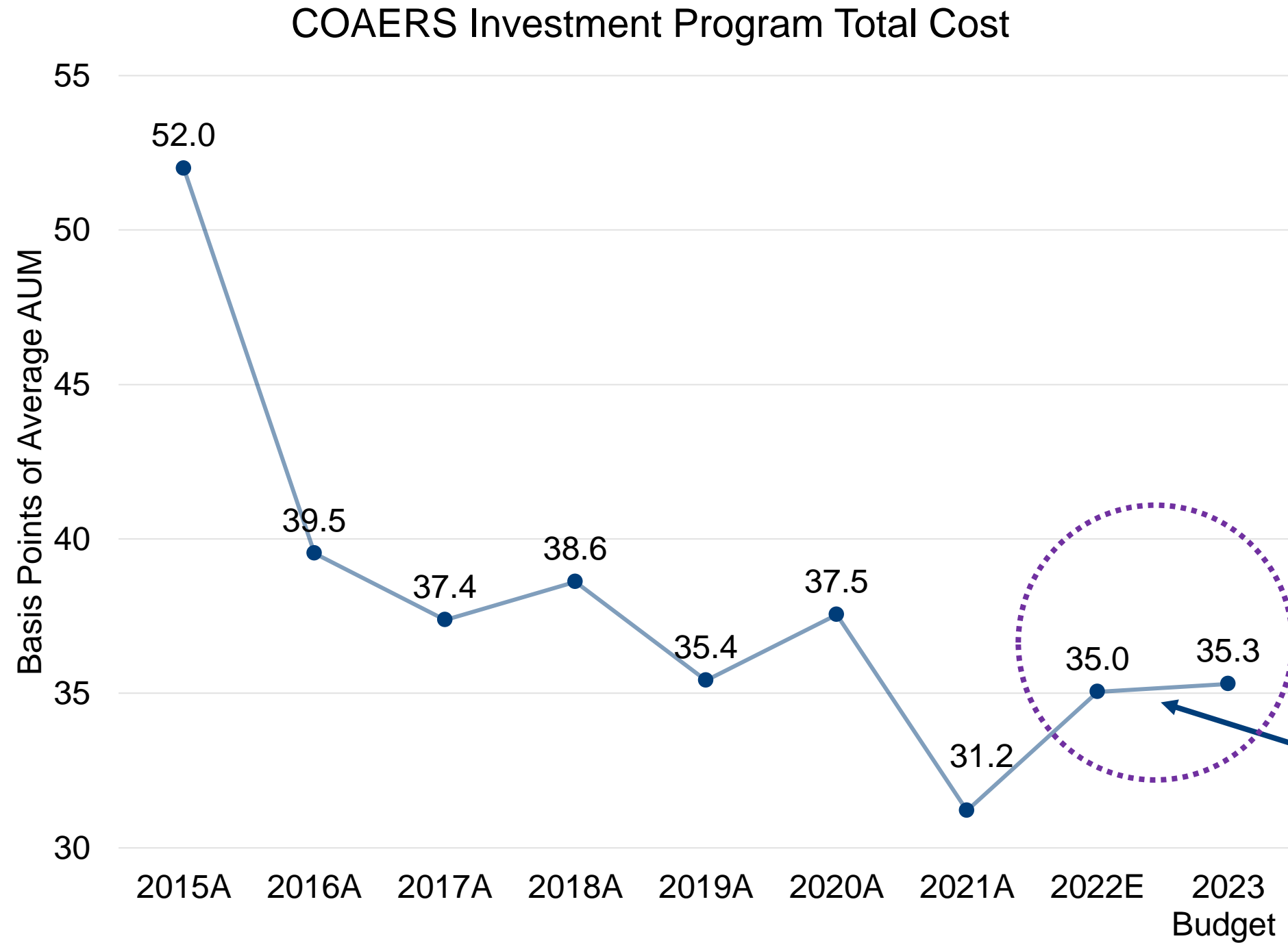
2019 CEM Benchmarking: COAERS \$3.2 Million Cheaper

- CEM data showed that if another plan were running our same allocation, the baseline cost expectation would be **\$3.2 million** higher than COAERS
- Substantial savings reflect the success of key initiatives including tough negotiation, the Premier List process, and prudent use of active management

Your cost versus benchmark

	\$000s	basis points
Your total investment cost	9,104	34.0 bp
Your benchmark cost	12,309	45.9 bp
Your excess cost	(3,205)	(12.0) bp

A Strong History of Good Stewardship

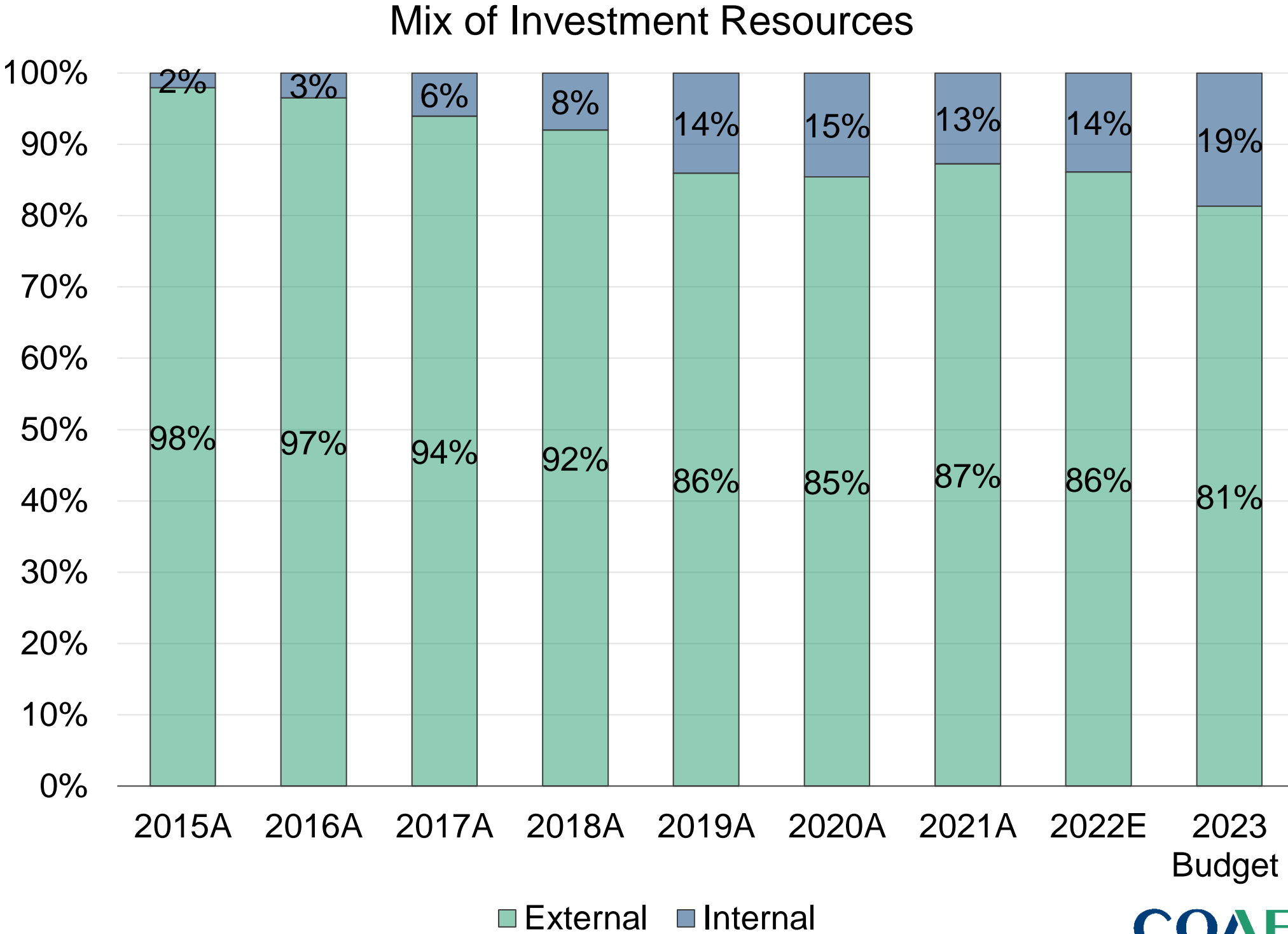


- A strong alignment with investment beliefs and consistent execution in manager selection has led to low investment costs over the past several years
- Maintaining prudent fee levels and defraying costs has significantly contributed to net of fees outperformance for the total Fund

Increases in costs as a percentage of Fund assets from 2021 are largely due to decreasing Fund AUM

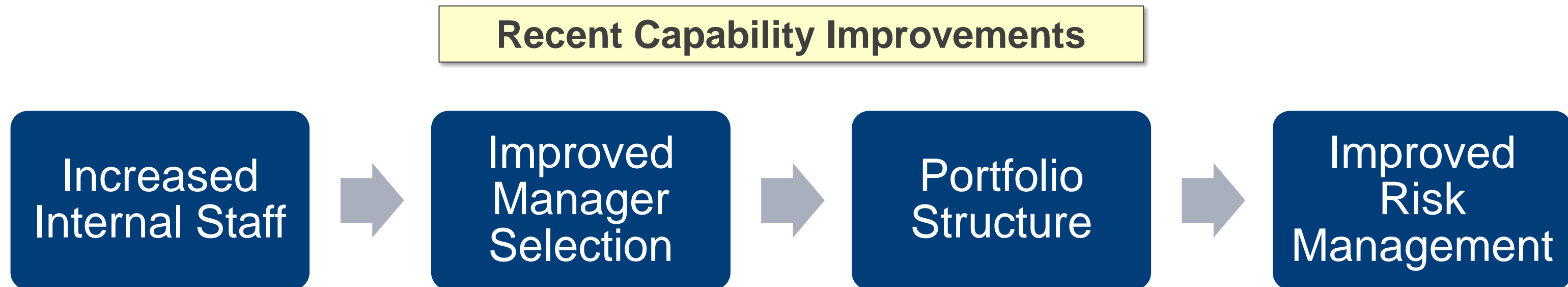
Mix Shift Toward Internal Resources

- Historically the vast majority (~98%) of investment expenses were paid to external managers, mostly to seek alpha within asset types
- A greater focus on Fund-level performance has shifted the mix toward internal resources to inform asset allocation and strategy with additional items in the proposed 2023 budget to improve risk management capabilities



Remember.... Cheapest ≠ Best

- Focusing on value added for fees paid should be the goal of budgeting processes – **to optimize, not minimize costs** for the System
- As such, it may be prudent to selectively build out key capabilities over the coming years, consistent with adopted Investment Beliefs, which are likely to add additional value to the System



Budgeting for 2023

- Proposed mix of investment resources modestly increases internal resources to improve upon some key capabilities:
 - Risk Management System
 - Due Diligence
- Adds in project-based items as set out in the Strategic Plan:
 - Asset/Liability Study Update
 - CEM Cost Benchmarking
 - Texas PRB Report
- Note that additional initiatives resulting from the Asset/Liability Study may have supplementary budgetary considerations

Proposed 2023 Investment Budget

	2023 Proposed Budget	2022 Budget	Change
Variable Cost Estimates ¹	7,714,281	9,208,532	-1,494,251
Investment Manager Fees	7,394,281	8,863,532	-1,469,251
Total	7,394,281	8,863,532	-1,469,251
Basis Points of Average AUM (estimated)	25.3	24.9	+0.4
Other Variable Investment Costs	320,000	345,000	-25,000
Investment Legal Counsel	50,000	75,000	-25,000
Commissions & Other Transaction Costs	220,000	220,000	0
Transition & Other Fees	50,000	50,000	0
Budgeted Costs	2,673,733	2,380,150	+293,583
Investment Consulting	410,908	329,431	+81,477
Investment Consultant - Base Fees ²	310,908	274,431	+36,477
Investment Consultant - Project Fees	100,000	55,000	+45,000
Investment Personnel	1,397,825	1,305,719	+92,106
Total Personnel Costs ³	1,397,825	1,305,719	+92,106
Travel and Training	100,000	65,000	+35,000
Due Diligence & Site Visits	50,000	30,000	+20,000
Staff Continuing Education	50,000	35,000	+15,000
Staff Investment Resources	455,000	370,000	+85,000
Investment Systems	300,000	175,000	+125,000
Investment Research	125,000	160,000	-35,000
Memberships & Licenses	20,000	25,000	-5,000
Subscriptions	10,000	10,000	0
Other Fixed Investment Costs	310,000	310,000	0
Custodial Fees	260,000	260,000	0
Reporting & Monitoring	50,000	50,000	0
Total Investment Costs	10,388,014	11,588,682	-1,200,668
Basis Points of Average AUM (estimated)	35.5	32.6	2.9

¹ Variable costs are provided for informational purposes and are based on Staff estimates. These items will fluctuate due to AUM based agreements and per transaction/mandate costs.

² Includes a mid-year inflation adjustment based on CPI.

³ Included for informational purposes and are included in the COAERS Administrative Budget.

2022 Budget Progress

	2022 Budget	Estimated 2022 Expenses	Variance from 2022 Budget
Variable Cost Estimates¹	9,208,532	8,667,739	-540,793
Investment Manager Fees	8,863,532	8,436,949	-426,583
Total	8,863,532	8,436,949	-426,583
Basis Points of Average AUM (estimated)	24.9	27.3	+2.4
Other Variable Investment Costs	345,000	230,790	-114,210
Investment Legal Counsel	75,000	20,104	-54,896
Commissions & Other Transaction Costs	220,000	176,383	-43,617
Transition & Other Fees	50,000	34,303	-15,697
Budgeted Costs	2,380,150	2,159,141	-221,008
Investment Consulting	329,431	338,754	+9,323
Investment Consultant - Base Fees ²	274,431	283,754	+9,323
Investment Consultant - Project Fees	55,000	55,000	0
Investment Personnel	1,305,719	1,184,050	-121,669
Total Personnel Costs ³	1,305,719	1,184,050	-121,669
Travel and Training	65,000	49,660	-15,340
Due Diligence & Site Visits	30,000	28,793	-1,207
Staff Continuing Education	35,000	20,867	-14,133
Staff Investment Resources	370,000	278,677	-91,323
Investment Systems	175,000	133,164	-41,836
Investment Research	160,000	120,599	-39,401
Memberships & Licenses	25,000	15,421	-9,579
Subscriptions	10,000	9,493	-507
Other Fixed Investment Costs	310,000	308,000	-2,000
Custodial Fees	260,000	260,000	0
Reporting & Monitoring	50,000	48,000	-2,000
Total Investment Costs	11,588,682	10,826,881	-761,801
Basis Points of Average AUM (estimated)	32.6	35.0	2.4

¹ Variable costs are provided for informational purposes and are based on Staff estimates. These items will fluctuate due to AUM based agreements and per transaction/mandate costs.

² Includes a mid-year inflation adjustment based on CPI.

³ Included for informational purposes and are included in the COAERS Administrative Budget.

9. Discuss and consider Investment Committee Charter

Presented by David Kushner

AGENDA ITEM 9:
Discuss and consider Investment Committee Charter

AGENDA ITEM OBJECTIVE

The objective of this agenda item is for the Committee to conduct its regularly scheduled (at least every three years) review of the Committee charter.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and implement leading practices in board governance, pension administration, and investment management.** It is an industry best practice to periodically review governing documents.

RECOMMENDATION FOR COMMITTEE ACTION

Staff recommends that the Committee refer to the Board for approval proposed changes to the Investment Committee charter.

BACKGROUND

The Investment Committee charter requires that it be reviewed every 3 years for continued relevancy and appropriateness. The charter was last reviewed in December 2019.

ATTACHMENT

1. Proposed Investment Committee Charter - Redline

City of Austin Employees' Retirement System Charter for the Investment Committee

Introduction

- 1) **Purpose** - The purpose of the Investment Committee is to assist the Board of Trustees in fulfilling its fiduciary oversight responsibility for the investment assets of the System ("the Fund").
- 2) **Authority** - The Investment Committee will consider all matters relating to the Fund; and will make specific recommendations to the Board to achieve the investment goals and objectives of the System. All recommendations shall be subject to approval by the Board of Trustees.
- 3) **Composition** - The Investment Committee will consist of at least five members of the Board of Trustees and the composition shall be consistent with COAERS Bylaws. Training may be obtained as needed to enhance members' knowledge of investments to fulfill the prudent person standard.
- 4) **Meetings** - The Investment Committee will meet at least quarterly, with authority to convene additional meetings as circumstances require. All committee members are expected to attend each meeting. The committee may invite investment managers, professional advisors, and others to attend meetings and provide pertinent information as necessary. Meeting agendas will be prepared and provided in advance to members, along with appropriate briefing materials.

Duties and Responsibilities

- 1) **Make Recommendations:**
 - Establish the investment strategy and governance framework including the approach to asset allocation considering the risk and return objectives of the Fund and the System's liability stream.
 - Formulate and maintain investment policies, processes, and guidelines of the System regarding investment strategy, asset allocation, investment implementation, benchmarking, and other investment issues.
 - ~~Review investment-related contracts including those~~ Recommend to the Board service providers for professional services for investment consulting, investment management, and custodial banking.
- 2) **Oversee Activities:**
 - Monitor the management of the portfolio for meeting performance objectives over time and for compliance with the investment policies and guidelines.
- 3) **Review Performance:**
 - Assess regularly the effectiveness of investment strategy, governance, asset allocation, risk budgeting and other long-term criteria as well as the allocation of investment resources.
 - Monitor the performance of Staff, investment managers, investment consultant, custodians, and other key relationships relative to contractual obligations and other criteria as appropriate.

Monitoring and Reporting

- 1) The Investment Committee will establish in policy the reporting and monitoring practices necessary to provide the Board with the information it requires to effectively oversee the Fund.
- 2) The Investment Committee will report to the Board on its activities. The Investment

Committee will keep minutes of its meetings and make these materials available to Trustees.

Charter Review and History

- 1) This Charter will be reviewed at least every three years for continued relevancy and appropriateness.
- 2) The Board adopted this Charter on December 1~~5~~⁰, 20~~22~~¹⁹.

10. Review 2022 Committee Work Plan
and discuss development of 2023

Committee Work Plan

Presented by Christopher Hanson

AGENDA ITEM 10:
Review 2022 Committee Work Plan and
discuss development of 2023 Committee Work Plan

AGENDA ITEM OBJECTIVE

This agenda item is for the Committee to review the work done by the Committee in 2022 and discuss the development of the 2023 Committee Work Plan.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and Implement Best Practices**. It is an industry best practice to establish and review Committee work plans.

RECOMMENDATION FOR COMMITTEE ACTION

At the Committee's discretion.

ATTACHMENTS

1. 2022 Committee Work Plan
2. Draft 2023 Committee Work Plan

2022 Investment Committee Work Plan

Scheduled Quarterly Meetings

1. February meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Investment Risk Framework process
 - ✓ Annual review of investment goals, assumptions, guidelines, and policies
 - ✓ Annual review of Investment Policy Statement (IPS)/Investment Implementation Policy (IIP)
 - ✓ Annual review of Premier List for Multi-Asset

2. May meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Premier Lists for Fixed Income and Cash and Equivalents
 - ✓ Annual review of Investment Consultant
 - ✓ Discuss and consider investment beliefs, investment program goals and strategy

3. August meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Premier List for Global Equities
 - ✓ Discuss and consider investment program goals and strategy

4. Board workshop
 - ✓ Initial results of Asset/Liability Study
 - ~~Discussion of investment beliefs, goals, strategy, and governance~~
 - ~~Private Markets education and considerations~~

5. November meeting
 - ✓ Quarterly review of investment performance, positioning, strategy, and implementation
 - ✓ Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - ✓ Annual review of Premier List for Real Assets
 - ✓ Annual review of Investment budget
 - ✓ Discuss Committee work plan for 2023
 - ~~Discuss and consider investment program goals and strategy~~
Discuss and consider ALM/AA Study (*postponed until Q1 2023*)

2023 Investment Committee Work Plan

Scheduled Quarterly Meetings

1. February meeting
 - Quarterly review of investment performance, positioning, strategy, and implementation
 - Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - Annual review of Investment Risk Framework process
 - Annual review of Investment Policy Statement (IPS)/Investment Implementation Policy (IIP)
 - Annual review of investment goals, assumptions, guidelines, and policies
 - Annual review of Premier List for Multi-Asset
 - Discuss and consider Asset/Liability Study
 - PRB Investment Practices and Performance Evaluation: Scope and RFI
2. May meeting
 - Quarterly review of investment performance, positioning, strategy, and implementation
 - Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - Annual review of Premier Lists for Fixed Income and Cash and Equivalents
 - Discuss and consider Asset Allocation Study
 - Discuss and consider investment program goals and strategy, including policies and governance
 - Annual review of Investment Consultant
 - PRB Investment Practices and Performance Evaluation: Consultant options
3. August meeting
 - Quarterly review of investment performance, positioning, strategy, and implementation
 - Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - Annual review of Premier List for Global Equities
 - Discuss and consider investment program goals and strategy, including policies and governance
 - Discussion and consideration of General Consultant RFP and timeline
 - Review of Custody Bank
4. November meeting
 - Quarterly review of investment performance, positioning, strategy, and implementation
 - Quarterly reports on Premier Lists, delegated authority, manager fees, cash movements
 - Annual review of Premier List for Real Assets
 - Annual review of Investment budget
 - Discuss and consider investment program goals and strategy, including policies and governance
 - CEM Benchmark report
 - PRB Investment Practices and Performance: Evaluation Report
 - Discuss Committee work plan for 2024

**11. Receive key meeting takeaways and
call for future agenda items**

Presented by Committee Chair Benson

AGENDA ITEM 11:

Review key meeting takeaways and call for future agenda items

AGENDA ITEM OBJECTIVE

This standing agenda item provides Trustees the opportunity to review the key takeaways from the meeting.

RELEVANCE TO STRATEGIC PLAN

This agenda item meets **COAERS Strategic Plan Goal 4: Identify and implement leading practices in board governance, pension administration, and investment management**. It is an industry best practice to review key meeting takeaways to summarize what was accomplished at the meeting as well as ensure Staff has clear direction on further work and future agenda items.

RECOMMENDATION FOR COMMITTEE ACTION

Trustees will review key meeting takeaways and delineate next steps.